

JANUARY 1998

Asimov's SCIENCE FICTION

MOTHER DEATH
Robert Reed

REFLECTIONS
ON LIFE AND DEATH
Kristine Kathryn Rusch

Geoffrey A. Landis
Kandis Elliot

\$2.95 U.S. / \$3.75 CAN.



01

0 74820 08621 6

Discover the Secrets of Fiction Writing that Sells!



#10501 \$19.99



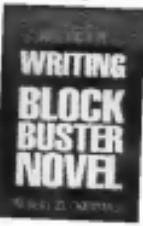
#10506 \$16.99 pb



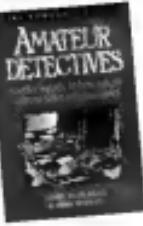
#10181 \$14.99



#10507 \$16.99 pb



#10393 \$18.99



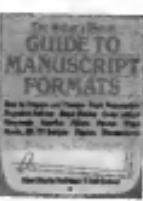
#10487 \$16.99 pb

#43057
\$27.98 pbs
Count both
books as
one selection.

Volumes 1 & 2



#10449 \$17.99



#10025 \$19.99



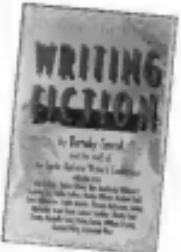
#10394 \$17.99



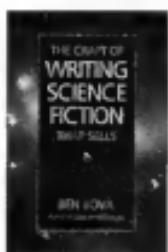
#48003 \$17.99



#10286 \$18.99



#10158 \$19.99



#10395 \$16.99



#10233 \$18.95



#10245 \$14.99 pb



#10463 \$17.99



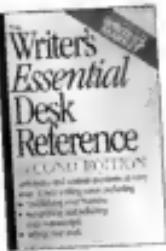
#10366 \$17.99



#10464 \$22.99



#10424 \$22.99



#10485 \$24.99

AS A CLUB MEMBER, YOU'LL ENJOY:

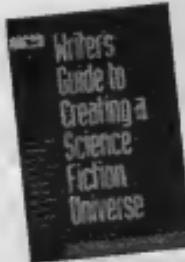
- Discounts from 15-65% on every book you buy!
- FREE shipping & handling on prepaid orders (after this joining offer)!
- Satisfaction Guaranteed 100%!

You'll receive the *BULLETIN* about fourteen times a year, featuring a Main Selection and 100 or more of the newest and best writing instruction books. If you want the Main Selection, do nothing, and it will be sent automatically. If you want a different book, or want nothing that month, you'll always have at least 10 days to decide and notify the Club by returning your Selection Card. If late delivery of the *BULLETIN* should ever cause you to receive a book you don't want, you may return it at Club expense. As a new member you agree to purchase one book from the *BULLETIN* within the next six months; after that, you may cancel your membership at any time. Each time you buy a book, your membership will be renewed for six months from the purchase date.

**TAKE 2
BOOKS**

FREE

WITH 1 FOR JUST \$9.95 WHEN YOU JOIN WRITER'S DIGEST BOOK CLUB!



#10349 \$18.95



#10488 \$16.99 pb



#10470 \$16.99



#10491 \$19.99



#10469 \$17.99

MEMBERSHIP SAVINGS CERTIFICATE

YES! I want to join Writer's Digest Book Club. Please sign me up and send me:

My first FREE book # _____ **FREE**
and my second FREE book # _____ **FREE**
with my third book # _____ for only \$ 9.95
plus shipping and handling \$ 6.53
all for just \$ 16.48

(Payment must accompany order. Ohio residents add 60¢ tax; Canadians add \$1.15 GST.)

Check enclosed or Charge my VISA MasterCard

Acct # Exp. Date:

I have read the membership plan and agree to buy 1 more book in the next 6 months.

Signature
required on all certificates

Name

Address

City State/Prov ZIP/PC

**Writer's Digest
BOOK CLUB**

Limited time offer good for new members in U.S. and Canada only. U.S. funds only. Allow 3-4 weeks for delivery. All applications subject to approval.

P.O. Box 12948 Cincinnati, Ohio 45212-0948

AS47

Asimov's

SCIENCE FICTION

Vol. 22 No. 1 (Whole Number 265)
January 1998

Next Issue on Sale
December 16, 1997



102



64

Cover illustration by
Ron Walotsky

NOVELLA

- 102 Mather Death _____ Robert Reed

NOVELETTES

- 10 Approaching Perimelasma ___ Geoffrey A. Landis
46 King Moron _____ R. Neube
64 Evalution in Guadalajara _____ Kandis Elliot
84 Taking Care of Daddy _____ Brian C. Caad

SHORT STORY

- 34 Reflections on Life
and Death _____ Kristine Kathryn Rusch

POETRY

- 63 Caliban in Ferragamas ___ Nancy Etchemendy
83 Visitar _____ Catherine Mintz
101 The Genetic Engineer Throws a Cocktail
Party and Drinks Too Much ___ Andy Duncan

DEPARTMENTS

- 4 Reflections: The Great
Whale Hunt _____ Robert Silverberg
146 On Books _____ Peter Heck
153 1997 Index _____
157 Twelfth Annual Readers' Award Ballot _____
160 The SF Conventional Calendar _ Erwin S. Strauss

Gardner Dozois: Editor

Sheila Williams: Executive Editor

Isaac Asimov: Editorial Director (1977-1992)

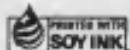
Peter Kanter: Publisher

Fran Danan: Editorial Director

**Stories from
Asimov's have won
twenty-nine Hugos
and twenty-three
Nebula Awards, and
our editors have
received nine
Hugo Awards for
Best Editor.
Asimov's was also
the 1996 recipient
of the Locus Award
for Best Magazine.**

Published monthly except for a combined October/November double issue by Dell Magazines, a division of CrossTown Publications. One year subscription \$33.97 in the United States and U.S. possessions. In all other countries \$41.97 (GST included in Canada), payable in advance in U.S. funds. Address for subscription and all other correspondence about them, Box 54625, Boulder, CO 80328-4625. Allow 6 to 8 weeks for change of address. Address for all editorial matters, Asimov's Science Fiction, 1270 Avenue of the Americas, New York, N.Y. 10020. Asimov's Science Fiction is the registered trademark of Dell Magazines, a division of CrossTown Publications. © 1997 by Dell Magazines, a division of CrossTown Publications, 1270 Avenue of the Americas, New York, N.Y. 10020. All rights reserved, printed in the U.S.A. Protection secured under the Universal and Pan American Copyright Conventions. Reproduction or use of editorial or pictorial content in any manner without express permission is prohibited. All submissions must include a self-addressed, stamped envelope; the publisher assumes no responsibility for unsolicited manuscripts. Periodical postage paid at New York, NY, and at additional mailing offices. Canadian postage paid at Windsor, Ontario, Canada Post International Publications Mail, Product Sales Agreement No. 260657. POSTMASTER, send change of address to Asimov's Science Fiction, Box 54625, Boulder, CO 80328-4625. In Canada return to 3255 Wyandotte Street East, Windsor, Ontario N8Y 1E9. USPS 533-310, ISSN 1055-2146. GST #R123293128

Printed in U.S.A.



NATIONAL GEOGRAPHIC VIDEO Presents:

The Amazing World Of **Cats**

**Discover the secrets of
their intriguing behavior on this
fascinating, beautifully filmed video!**

- The body posture that reveals when a cat is about to "spring"
- Your cat's secret alertness during a "cat nap"
- The jungle predator exposed in your cat's play and games
- The keen hunter's sense that enables cats to stalk in the dark
- The elusive function of cats' whiskers
- The astonishing attributes that give cats "nine lives" and more!



For thousands of years, cats have charmed us, delighted us...and perplexed us. Have you ever wondered why cats always land on all four feet? Or what makes them purr? Or why they launch into a flurry of activity in the evening? Now, a fascinating video from National Geographic answers the questions asked most—what makes cats behave the way they do?

THRILL TO DRAMATIC FILM SEQUENCES

Join wildlife experts from around the world as they unravel riddles that have mystified cat lovers throughout the ages. Find out what few cat owners realize—with even the sweetest pussycat lurks the primal instincts of a lion, tiger, cougar or lynx. Thrill to dramatic film sequences that show how the behavior of your cat is never far removed from that of its cousins in the wild, even when at play.

FIND OUT WHY CATS ACT THE WAY THEY DO

Explore the intriguing relationship that has grown between cats and people. Adored and revered in ancient Egypt, feared and even persecuted in medieval times, inspiration to poets and painters, cats have never been more popular than today. Hear how the comforting companionship of a cat may even benefit our health, well-being and longevity. Sensational, one-of-a-kind video from National Geographic makes a delightful gift for any cat lover. VHS. 63 minutes.

**Abigail's Treasures, Dept. DNG32, PO Box 66, Avon-by-the-Sea, NJ 07717
FASTER SERVICE CALL (908) 280-9300**

Please send me my National Geographic's "Cat" Video(s) (Item #W742) on 30-day money back guarantee. VHS only.

Name _____

Address _____

City _____ State _____ Zip _____

- One Video for \$19.95 plus \$3.95 postage and handling. Total \$23.90.
 Two Videos for only \$38.00 plus \$4.95 postage and handling. Total \$42.95.

Enclosed is \$ _____ (NJ residents please add sales tax) Make check or money order payable to Abigail's Treasures. Charge to my: MasterCard Visa American Express

Account # _____ Exp. Date _____

To help process order, you may wish to include your daytime phone number

() _____

Please allow up to 4-6 weeks for delivery.
©1993



THE GREAT WHALE HUNT

Call me Ishmael. Call her Sea-sick.

Intelligent non-humanoid mammals of gigantic size undertake a migration across the face of our planet every year in my part of the world. Nothing more than a couple of miles of ice-cold ocean separates their migration route from the town where I live. The fact that such extraordinary beings do actually share our very own world with us is fascinating to someone like me who has spent most of his life inventing non-humanoid life forms, and I've long wanted to get a close look at them, and last week I finally did. As did my wife Karen, though I don't think she enjoyed the experience quite as much as I did.

I'm talking about the gray whales of the California coast. Their scientific name is *Rachianectes glaucus*, which means "gray rocky-shore swimmer," and that is precisely what they are. They spend their summers high up in the North Pacific in the Bering and Chukchi seas. As the days dwindle down toward winter, they hit the road, one tribe migrating down the east coast of Asia toward Korea, the rest going down the west coast of North America as far as Baja California, a stupendous maritime journey of some seven

thousand miles. They bring forth their young down there, in the deepest days of winter, and start up the coast again in January, escorting their cute little fifteen-foot-long newborns back to the icy waters of the far north.

This whole migration takes place, as their Latin name implies, in the shallow waters of the Pacific coast. No other whale comes so close to shore as the gray, which (so I'm told) sometimes will rest in a mere two feet of water along a beach at low tide. Not only do they like to feed on krill and amphipods, tiny shrimp-like creatures that live in the vast beds of the giant seaweed kelp growing just off shore, but they make use of the shoreline rocks to scratch their hides, which are thickly covered with barnacles and other freeloading boarders and are, consequently, extremely itchy.

Because they swim so close to shore, they are reputedly easy to see from the coastal headlands. Gregory Benford, whose home is on a Southern California hillside within easy view of the sea, has told me of watching them with the aid of binoculars through his front windows. I haven't been so lucky. For the past twenty-five years I've been trying to catch a glimpse of gray whales, just one snippety little glimpse, as I drive up and down

the California coast in winter, and I've not seen nary a one, matey, nary a one. I've parked on the coastal bluffs and stood staring out to sea for half an hour at a time without any luck at all.

Then, too, I've gone looking for them right in their spawning grounds in Baja California. Baja, as we locals fondly call the long, skinny peninsula that sprouts from the continent just across the Mexican border from San Diego, is (if you like deserts, and I do) a wondrously picturesque place, and about twenty years ago I traversed it from one end to the other, a thousand miles of cactus and other botanical weirdities. Midway down the Pacific side of Baja is Scammon's Lagoon, which is not in any way picturesque—it's a bleak, grim, barren place, cold and windy and raw in winter—but winter is when two thousand gray whales snuggle up in the lagoon to bear their young. Naturally, I went to have a look one February, imagining I would see whales galore, some of them doing the spectacular maneuver known as "breaching"—jumping clear out of the water—and others, at least, "spy-hopping," lifting their heads straight up into view. But something was malfunctioning about the whale migration that year, because the lagoon was empty of cetaceans when I arrived, and after a couple of shivery hours I gave up and went away, utterly unsatisfied.

And brooded about the whole whale thing for years thereafter, until, not long ago, Karen came

GARDNER DOZOIS:
Editor

SHEILA WILLIAMS:
Executive Editor

TORSTEN SCHEIHAGEN:
Editorial Assistant

DANA MOLLIN:
Editorial Assistant

MONICA GAIGEROSSENSWEIG:
Creative Director

SHIRLEY CHAN LEVI:
Assistant Art Director

CAROLE DIXON:
Production Manager

KATHLEEN HALLIGAN:
Associate Manager, Subsidiary Rights and Marketing

ROBERT H. SEIDEN:
Manager, Contracts and Permissions

BRUCE W. SHERBOW:
Director of Newsstand Sales

SANDY MARLOWE:
Circulation Services

FRAN DANON:
Editorial Director

ISAAC ASIMOV:
Editorial Director
(1977-1992)

PETER KANTER:
Publisher

ADVERTISING REPRESENTATIVE
David Geier Publishers' Rep. (212) 682-1540

Please do not send us your manuscript until you've gotten a copy of our manuscript guidelines. To obtain this, send us a self-addressed, stamped business-size envelope (what stationery stores call a number 10 envelope), and a note requesting this information. Please write "manuscript guidelines" in the bottom left-hand corner of the outside envelope. The address for this and for all editorial correspondence is Asimov's Science Fiction, 1270 Avenue of the Americas, New York, N.Y. 10020. While we're always looking for new writers, please, in the interest of time-saving, find out what we're looking for, and how to prepare it, before submitting your story.

upon news of a San Francisco outfit called Ocean Society Expeditions, which for a piddling two-figure sum would take us out into the Pacific in a 56-foot motor vessel and, if whales happened to be in the vicinity, bring us right up close to them. So we signed up, despite my glum feeling that I had bad whale karma and that not even this was going to work.

Our boat departed from Pillar Point Harbor, just north of Half Moon Bay on the glorious and still pretty wild-looking Northern California coast. There were perhaps thirty fellow whale-seekers on board. It was a splendid March day, well along in spring in these parts, sunny and clear, the temperature up in the high sixties. But because the Pacific is a very very chilly ocean, we had been warned to dress warmly, and there I was, sweltering and miserable in an unaccustomed sweatshirt with a windbreaker over it, with Karen beside me in layer upon layer of stuff. Five minutes after we left the harbor, I was glad of it: out there in the actual ocean the air was cold and the breeze was brisk, and I began to wish I had brought a pair of gloves along, too.

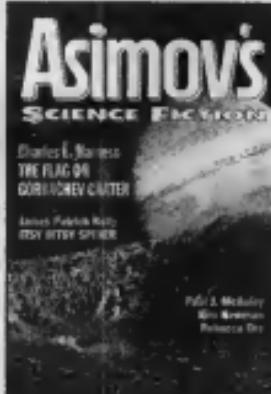
It's a lovely ocean, the Pacific. It's remarkably large, too, and as the doughty *Salty Lady* went zooming across the billowing waves in search of gray whales I began to think that this was very much like a needle-in-a-haystack kind of operation. All this water; so few whales: how would we ever find one?

Fifteen very chilly minutes went by and I began to feel sure that this would be just one more goddamn wild-whale-chase. Just at that moment our jolly captain announced that he had spotted two whales off the starboard bow. Walk, don't run, he warned, as we all crowded hastily toward starboard, fumbling for our binoculars and cameras and stuff.

Where off starboard, though? We looked this way and that, crying out in erroneous joy at waves and logs and other things. And then we saw the whales. Their vast backs, anyway: ancient, corroded barnacle-covered backs, more mottled-brown than gray, poking briefly up above the surface before they slid from view. We cruised alongside them for perhaps twenty minutes, watching them dive, rise, blow, surface, dive again. One of them obligingly did a headstand, displaying, for a moment, its two huge tail-flukes. Other than that, all we saw was a bit of barnacled back every now and then. But that was plenty.

Gray whales aren't the biggest of their kind, by any means. They generally get no more than forty-five feet in length. (The blue whale, the largest species, averages ninety feet or so.) Nor are they particularly long-lived, however ancient all those barnacles made them seem. Apparently they live thirty to forty years, which I would find a very long lifespan indeed if I had to spend it swimming back and forth in the icy Pacific.

But they *looked* ancient. They



A Gift They'll Enjoy All Year!

Share the excitement of new worlds when you give a gift subscription to **Asimov's Science Fiction**!

We'll send 12 issues filled with imaginative stories from the best science fiction writers of today for just \$27.97. You save more than 20%!

To charge your order by phone, call toll-free:

1-800-333-4108

Mail to: Asimov's, P.O. Box 54625, Boulder, CO 80322-4625

Payment enclosed

Bill me

Send to:

Name _____

Address _____

City _____

State _____ Zip _____

From:

Name _____

Address _____

City _____

State _____ Zip _____

Use a separate sheet of paper for additional gift subscriptions. Allow 6 to 8 weeks for delivery of first issue. We publish a double issue in October/November which counts as two issues toward your subscription. Outside USA: Add \$5 per year for shipping and handling. (US funds only, payable with order.) To charge your order by phone call 303-678-0439.

HF975

looked wise and majestic and wonderful. Even if all I could see of them was a flash of massive back a couple of hundred yards away, it was awesome enough merely to be in the presence of these beings.

And I knew how lucky I was that they were here to be seen at all, if only in glimpses. They used to exist in great numbers in the Pacific, but a fifty-year whale-hunt that began in 1846 saw most of them very efficiently killed for their oil (a large one who had fattened himself up for the southward migration might yield seventy barrels). By 1895 they were thought to be extinct, at least along our coast. But about one hundred members of the Korean-wintering segment of the tribe had survived, and

gradually they repopulated our end of the Pacific as well. The decline of the San Francisco-based whaling industry, coupled with the coming of modern conservationist legislation (hunting gray whales has been banned since 1937), allowed them to regenerate; there may be as many as twenty thousand of them today.

We watched our two until they swam so close to shore, perhaps in need of immediate backscratching, that our boat could not safely follow. For the next hour or so we wandered the offshore waters looking for others. Some of the glow of our triumphant whale-finding began to dwindle during that long and increasingly chilly hour. I am not a patient man at

best, and there was nothing much to do aboard the *Salty Lady* except to peer at the Pacific and hope for the thrill of spotting the next whale before our skipper did. And Karen, I discovered, was getting seasick.

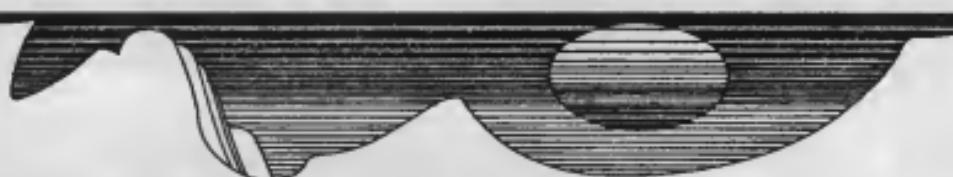
I am not susceptible to seasickness, which is more precisely known as "motion sickness." This is not because I am an unusually rugged and virile human being, but merely because the membranous labyrinth of my inner ear, which has charge of my equilibrium, does not react as vociferously to sudden shifts in body position as do the labyrinths of some other people's inner ears. Karen's, for example. So, while I fretted in my restless fashion and wandered the deck looking for ways to keep warm, Karen grew steadily quieter and greener and quieter and greener. "Is something wrong?" I asked, finally, in my sensitive masculine way. "Yes," she said. "I'm seasick." Since I've never had that malady, I had forgotten, in my sensitive, masculine way, that other people sometimes do. I had brought a flask of rum with me to see me through the coldest part of the voyage. "Will this help?" I asked. "No," she said.

But then the captain said, "We're in the middle of a big pod of

whales, folks," and color returned to Karen's cheeks and the camera to her hands, and there we all were again, crowding the bow to stare in wonder at the gigantic non-humanoid life-forms thronging the sea about us, half a dozen this time. One came rushing right toward us, staging a spectacular dive, flukes all a flap, just as I began wondering whether our captain's middle name might be Ahab. We had another twenty minutes of astonishing cetacean diversion.

And then the whales went away and the *Salty Lady* headed for shore and soon we were warm and dry again, and in our car and heading for the nearby city of San Mateo, where we enjoyed spaghetti and red wine in the company of good friends, options that were not readily available to Starbuck and Queequeg and Ishmael and the rest of that crowd.

Our great whale hunt had some dull moments, and some chilly ones, and, for some of us, some icky green-faced ones. But it provided, also, that grand sense of knowing that We Are Not Alone on this world, that we share it with some noble and astonishing warm-blooded creatures of great size and, apparently, high intelligence. I'm glad to have paid a call on them at long last. ●



C
O
N
G
R
A
T
U
L
A
T
E
S

Asimov's SCIENCE FICTION

THE WINNERS OF THE **1996** **HUGO AWARDS**

Best Novel

Blue Mars
Kim Stanley Robinson

Best Novelette

"Bicycle Repairman"
Bruce Sterling
Asimov's, October/November 1996

Best Nonfiction Book

Time & Chance
L. Sprague de Camp

Best Professional Editor
Gardner Dozois

Best Dramatic Presentation
"Severed Dreams"
Babylon 5

Best Fan Writer
Dave Langford

Best Fan Artist
William Rotsler

Best Novella

"Blood of the Dragon"
George R.R. Martin
Asimov's, July 1996

Best Short Story

"The Soul Selects Her Own Society . . ."
Connie Willis
Asimov's, April 1996

**John W. Campbell Award for
Best New Writer**
Michael A. Burstein

Best Professional Artist
Bob Eggleton

Best Fanzine
Mimosa
edited by Dick & Nicki Lynch

Best Semiprozine
Locus
edited by Charles N. Brown



Geoffrey A. Landis

The author has recently been traveling back and forth from his home in Ohio to Pasadena, California, where he was working as a scientist on the Mars Pathfinder Mission. Now he sends his own unusual astronaut on a dangerous journey into the heart of darkness. This exceptional character discovers much about himself while unlocking some of the secrets of black holes and examining what it means to be.

APPROACHING PERIMELASMA

Illustration by Alan Giard

There is a sudden frisson of adrenaline, a surge of something approaching terror (if I could still feel terror), and I realize that this is it, this time I am the one who is doing it.

I'm the one who is going to drop into a black hole.

Oh, my god. This time I'm not you.

This is real.

Of course, I have experienced this exact feeling before. We both know exactly what it feels like.

My body seems weird, too big and at once too small. The feel of my muscles, my vision, my kinesthetic sense, everything is wrong. Everything is strange. My vision is fuzzy, and colors are oddly distorted. When I move, my body moves unexpectedly fast. But there seems to be nothing wrong with it. Already I am getting used to it. "It will do," I say.

There is too much to know, too much to be all at once. I slowly coalesce the fragments of your personality. None of them are you. All of them are you.

A pilot, of course, you must have, you must be, a pilot. I integrate your pilot persona, and he is me. I will fly to the heart of a darkness far darker than any mere unexplored continent. A scientist, somebody to understand your experience, yes. I synthesize a persona. You are him, too, and I understand.

And someone to simply *experience* it, to tell the tale (if any of me will survive to tell the tale) of how you dropped into a black hole, and how you survived. If you survive. *Me*. I will call myself Wolf, naming myself after a nearby star, for no reason whatsoever, except maybe to claim, if only to myself, that I am not you.

All of we are me are you. But, in a real sense, you're not here at all. None of me are you. You are far away. Safe.

Some black holes, my scientist persona whispers, are decorated with an accretion disk, shining like a gaudy signal in the sky. Dust and gas from the interstellar medium fall toward the hungry singularity, accelerating to nearly the speed of light in their descent, swirling madly as they fall. It collides; compresses; ionizes. Friction heats the plasma millions of degrees, to emit a brilliant glow of hard X-rays. Such black holes are anything but black; the incandescence of the infalling gas may be the most brilliantly glowing thing in a galaxy. Nobody and nothing would be able to get near it; nothing would be able to survive the radiation.

The Virgo hole is not one of these. It is ancient, dating from the very first burst of star-formation when the universe was new, and has long ago swallowed or ejected all the interstellar gas in its region, carving an emptiness far into the interstellar medium around it.

The black hole is fifty-seven light years from Earth. Ten billion years

ago, it had been a supermassive star, and exploded in a supernova that for a brief moment had shone brighter than the galaxy, in the process tossing away half its mass. Now there is nothing left of the star. The burned-out remnant, some thirty times the mass of the sun, has pulled in space itself around it, leaving nothing behind but gravity.

Before the download, the psychologist investigated my—your—mental soundness. We must have passed the test, obviously, since I'm here. What type of man would allow himself to fall into a black hole? That is my question. Maybe if I can answer that, I would understand myself.

But this did not seem to interest the psychologist. She did not, in fact, even look directly at me. Her face had the focusless abstract gaze characteristic of somebody hotlinked by the optic nerve to a computer system. Her talk was perfunctory. To be fair, the object of her study was not the flesh me, but my computed reflection, the digital maps of my soul. I remember the last thing she said.

"We are fascinated with black holes because of their depth of metaphor," she said, looking nowhere. "A black hole is, literally, the place of no return. We see it as a metaphor for how we, ourselves, are hurled blindly into a place from which no information ever reaches us, the place from which no one ever returns. We live our lives falling into the future, and we will all inevitably meet the singularity." She paused, expecting, no doubt, some comment. But I remained silent.

"Just remember this," she said, and for the first time her eyes returned to the outside world and focused on me. "This is a real black hole, not a metaphor. Don't treat it like a metaphor. Expect reality." She paused, and finally added, "Trust the math. It's all we really know, and all that we have to trust."

Little help.

Wolf versus the black hole! One might think that such a contest is an unequal one, that the black hole has an overwhelming advantage.

Not quite so unequal.

On my side, I have technology. To start with, the wormhole, the technological sleight-of-space which got you fifty-seven light years from Earth in the first place.

The wormhole is a monster of relativity no less than the black hole, a trick of curved space allowed by the theory of general relativity. After the Virgo black hole was discovered, a wormhole mouth was laboriously dragged to it, slower than light, a project that took over a century. Once the wormhole was here, though, the trip became only a short one, barely a meter of travel. Anybody could come here and drop into it.

A wormhole—a far too cute name, but one we seem to be stuck with—is a shortcut from one place to another. Physically, it is nothing more

than a loop of exotic matter. If you move through the hoop on this side of the wormhole, you emerge out the hoop on that side. Topologically, the two sides of the wormhole are pasted together, a piece cut out of space glued together elsewhere.

Exhibiting an excessive sense of caution, the proctors of Earthspace refused to allow the other end of the Virgo wormhole to exit at the usual transportation nexus, the wormhole swarm at Neptune-Trojan 4. The far end of the wormhole opens instead to an orbit around Wolf-562, an undistinguished red dwarf sun circled by two airless planets that are little more than frozen rocks, twenty-one light-years from Earthspace. To get here we had to take a double wormhole hop: Wolf, Virgo.

The black hole is a hundred kilometers across. The wormhole is only a few meters across. I would think that they were overly cautious.

The first lesson of relativity is that time and space are one. For a long time after the theoretical prediction that such a thing as a traversable wormhole ought to be possible, it was believed that a wormhole could also be made to traverse time as well. It was only much later, when wormhole travel was tested, that it was found that the Cauchy instability makes it impossible to form a wormhole that leads backward in time. The theory was correct—space and time are indeed just aspects of the same reality, spacetime—but any attempt to move a wormhole in such a way that it becomes a timehole produces a vacuum polarization to cancel out the time effect.

After we—the spaceship I am to pilot, and myself/yourself—come through the wormhole, the wormhole engineers go to work. I have never seen this process close up, so I stay nearby to watch. This is going to be interesting.

A wormhole looks like nothing more than a circular loop of string. It is, in fact, a loop of exotic material, negative-mass cosmic string. The engineers, working telerobotically via vacuum manipulator pods, spray charge onto the string. They charge it until it literally glows with Paschen discharge, like a neon light in the dirty vacuum, and then use the electric charge to manipulate the shape. With the application of invisible electromagnetic fields, the string starts to twist. This is a slow process. Only a few meters across, the wormhole loop has a mass roughly equal to that of Jupiter. Negative to that of Jupiter, to be precise, my scientist persona reminds me, but either way, it is a slow thing to move.

Ponderously, then, it twists further and further, until at last it becomes a lemniscate, a figure of eight. The instant the string touches itself, it shimmers for a moment, and then suddenly there are two glowing circles before us, twisting and oscillating in shape like jellyfish.

The engineers spray more charge onto the two wormholes, and the two wormholes, arcing lightning into space, slowly repel each other. The vibrations of the cosmic string are spraying out gravitational radiation like

a dog shaking off water—even where I am, floating ten kilometers distant, I can feel it, like the swaying of invisible tides—and as they radiate energy, the loops enlarge. The radiation represents a serious danger. If the engineers lose control of the string for even a brief instant, it might enter the instability known as "squiggle mode," and catastrophically enlarge. The engineers damp out the radiation before it gets critical, though—they are, after all, well practiced at this—and the loops stabilize into two perfect circles. On the other side, at Wolf, precisely the same scene has played out, and two loops of exotic string now circle Wolf-562 as well. The wormhole has been cloned.

All wormholes are daughters of the original wormhole, found floating in the depths of interstellar space eleven hundred years ago, a natural loop of negative cosmic string as ancient as the Big Bang, invisible to the eyes save for the distortion of spacetime. That first one led from nowhere interesting to nowhere exciting, but from that one we bred hundreds, and now we casually move wormhole mouths from star to star, breeding new wormholes as it suits us, to form an ever-expanding network of connections.

I should not have been so close. Angry red lights have been flashing in my peripheral vision, warning blinkers that I have been ignoring. The energy radiated in the form of gravitational waves had been prodigious, and would have, to a lesser person, been dangerous. But in my new body, I am nearly invulnerable, and if I can't stand a mere wormhole cloning, there is no way I will be able to stand a black hole. So I ignore the warnings, wave briefly to the engineers—though I doubt that they can even see me, floating kilometers away—and use my reaction jets to scoot over to my ship.

The ship I will pilot is docked to the research station, where the scientists have their instruments and the biological humans have their living quarters. The wormhole station is huge compared to my ship, which is a tiny ovoid occupying a berth almost invisible against the hull. There is no hurry for me to get to it.

I'm surprised that any of the technicians can even see me, tiny as I am in the void, but a few of them apparently do, because in my radio I hear casual greetings called out: how's it, *ohayo gozaimasu*, hey glad you made it, how's the bod? It's hard to tell from the radio voices which ones are people I know, and which are only casual acquaintances. I answer back: how's it, *ohayo*, yo, surpassing spec. None of them seem inclined to chat, but then, they're busy with their own work.

They are dropping things into the black hole.

Throwing things in, more to say. The wormhole station orbits a tenth of an astronomical unit from the Virgo black hole, closer to the black hole than Mercury is to the sun. This is an orbit with a period of a little over

two days, but, even so close to the black hole, there is nothing to see. A rock, released to fall straight downward, takes almost a day to reach the horizon.

One of the scientists supervising, a biological human named Sue, takes the time to talk with me a bit, explaining what they are measuring. What interests me most is that they are measuring whether the fall deviates from a straight line. This will let them know whether the black hole is rotating. Even a slight rotation would mess up the intricate dance of the trajectory required for my ship. However, the best current theories predict that an old black hole will have shed its angular momentum long ago, and, as far as the technicians can determine, their results show that the conjecture holds.

The black hole, or the absence in space where it is located, is utterly invisible from here. I follow the pointing finger of the scientist, but there is nothing to see. Even if I had a telescope, it is unlikely that I would be able to pick out the tiny region of utter blackness against the irregular darkness of an unfamiliar sky.

My ship is not so different from the drop probes. The main difference is that I will be on it.

Before boarding the station, I jet over in close to inspect my ship, a miniature egg of perfectly reflective material. The hull is made of a single crystal of a synthetic material so strong that no earthly force could even dent it.

A black hole, though, is no earthly force.

Wolf versus the black hole! The second technological trick I have in my duel against the black hole is my body.

I am no longer a fragile, fluid-filled biological human. The tidal forces at the horizon of a black hole would rip a true human apart in mere instants; the accelerations required to hover would squash one into liquid. To make this journey, I have downloaded your fragile biological mind into a body of more robust material. As important as the strength of my new body is the fact that it is tiny. The force produced by the curvature of gravity is proportional to the size of the object. My new body, a millimeter tall, is millions of times more resistant to being stretched to spaghetti.

The new body has another advantage as well. With my mind operating as software on a computer the size of a pinpoint, my thinking and my reflexes are thousands of times faster than biological. In fact, I have already chosen to slow my thinking down, so that I can still interact with the biologicals. At full speed, my microsecond reactions are lightning compared to the molasses of neuron speeds in biological humans. I see far in the ultraviolet now, a necessary compensation for the fact that my vision would consist of nothing but a blur if I tried to see by visible light.

You could have made my body any shape, of course, a tiny cube or even



"My TV reception is so clear, you'd think I had a 50-foot antenna on my roof!"

Emerson's ingenious new antennas are hard to spot, easy to install and provide clear, powerful reception of broadcast signals...without rabbit ears.



Replace your unsightly "rabbit ears" and bulky antennas now!

This resulted in products that were large and unsightly or small and ineffective. Either way, the aesthetic look of your room or house suffered.

Recently, a scientist in Colorado developed an antenna that would maximize reception without being overly conspicuous. Emerson, a leader in electronic technology, has now made this innovation available to the public. First, they created a flexible circuit board with a serpentine antenna, resulting in a large surface area confined to a

I'm amazed at the way technology has improved television. But a television's picture is only as good as the broadcast it's receiving. Rabbit-ear antennas don't improve your picture to any great degree, and most roof antennas are large and not pleasing to the eye.

Stealth antenna. In the past, creating an antenna with optimal reception meant making it big, with a large amount of surface area.

small space. Second, they developed a technique that converts the copper shielding on the attached cable to an additional signal receiver, which results in an antenna almost 10 feet long. This greatly enhances the antenna's reception power and allows you to tune the antenna by simply moving the cable! Plus, the omni-directional design allows you to mount the unit anywhere you please. The Optima's universal design makes it adaptable to any component, and installation is a snap.

Risk-free. Each of these antennas come with a 90-day manufacturer's limited warranty and Comtrad's risk-free home trial. Try them, and if you're not satisfied, return them within 90 days for a full refund.

Indoor/Outdoor Antenna \$69.95 \$8 S&H
Dishmate™ UHF/VHF Antenna \$69.95 \$8 S&H

The Dishmate™ will work with 18" dishes from RCA, Toshiba, ProScan, GE, Eurosat, Uniden, and Hughes DSS™ Satellite systems.

Please mention promotional code 2832-11889.

For fastest service, call toll-free 24 hours day

800-992-2966



Mini-dish owners. If you own a mini-dish satellite system, you can pick up local broadcasts with the Dishmate™. It uses the same technological innovations as the Optima TV antenna.

comtradindustries

2120 Waterford Lake Drive, Suite 102 Midlothian, VA 23113

a featureless sphere. But you followed the dictates of social convention. A right human should be recognizably a human, even if I am to be smaller than an ant, and so my body mimics a human body, although no part of it is organic, and my brain faithfully executes your own human brain software. From what I see and feel, externally and internally, I am completely, perfectly human.

As is right and proper. What is the value of experience to a machine? Later, after I return—if I return—I can upload back. I can become you. But return is, as they say, still somewhat problematical.

You, my original, what do you feel? Why did I think I would do it? I imagine you laughing hysterically about the trick you've played, sending me to drop into the black hole while you sit back in perfect comfort, in no danger. Imagining your laughter comforts me, for all that I know that it is false. I've been in the other place before, and never laughed.

I remember the first time I fell into a star.

We were hotlinked together, that time, united in online-realtme, our separate brains reacting as one brain. I remember what I thought, the incredible electric feel: ohmigod, am I really going to do this? Is it too late to back out?

The idea had been nothing more than a whim, a crazy idea, at first. We had been dropping probes into a star, Groombridge 1830B, studying the dynamics of a flare star. We were done, just about, and the last-day-of-project party was just getting in swing. We were all fuzzed with neurotransmitter randomizers, creativity spinning wild and critical thinking nearly zeroed. Somebody, I think it was Jenna, said, we could ride one down, you know. Wait for a flare, and then plunge through the middle of it. Helluva ride!

Helluva splash at the end, too, somebody said, and laughed.

Sure, somebody said. It might have been me. What do you figure? Download yourself to temp storage and then uplink frames from yourself as you drop?

That works, Jenna said. Better: we copy our bodies first, then link the two brains. One body drops; the other copy hotlinks to it.

Somehow, I don't remember when, the word "we" had grown to include me.

"Sure," I said. "And the copy on top is in null-input suspension; experiences the whole thing realtime!"

In the morning, when we were focused again, I might have dismissed the idea as a whim of the fuzz, but for Jenna the decision was already immovable as a droplet of neutronium. Sure we're dropping, let's start now!

We made a few changes. It takes a long time to fall into a star, even a small one like Bee, so the copy was reengineered to a slower thought-

rate, and the original body in null-input was frame-synched to the drop copy with impulse-echoers. Since the two brains were molecule by molecule identical, the uplink bandwidth required was minimal.

The probes were reworked to take a biological, which meant mostly that a cooling system had to be added to hold the interior temperature within the liquidus range of water. We did that by the simplest method possible: we surrounded the probes with a huge block of cometary ice. As it sublimated, the ionized gas would carry away heat. A secondary advantage of the ice was that our friends, watching from orbit, would have a blazing cometary trail to cheer on. When the ice was used up, of course, the body would slowly vaporize. None of us would actually survive to hit the star.

But that was no particular concern. If the experience turned out to be too undesirable, we could always edit the pain part of it out of the memory later.

It would have made more sense, perhaps, to have simply recorded the brain-uplink from the copy onto a local high-temp buffer, squirted it back, and linked to it as a memory upload. But Jenna would have none of that. She wanted to experience it in realtime, or at least in as close to realtime as speed-of-light delays allow.

Three of us—Jenna, Martha, and me—dropped. Something seems to be missing from my memory here; I can't remember the reason I decided to do it. It must have been something about a biological body, some a-rational consideration that seemed normal to my then-body, that I could never back down from a crazy whim of Jenna's.

And I had the same experience, the same feeling then, as I, you, did, always do, the feeling that my god *I am the copy and I am going to die*. But that time, of course, thinking every thought in synchrony, there was no way at all to tell the copy from the original, to split the me from you.

It is, in its way, a glorious feeling.

I dropped.

You felt it, you remember it. Boring at first, the long drop with nothing but freefall and the chatter of friends over the radio-link. Then the ice shell slowly flaking away, ionizing and beginning to glow, a diaphanous cocoon of pale violet, and below the red star getting larger and larger, the surface mottled and wrinkled, and then suddenly we fell into and through the flare, a huge luminous vault above us, dwarfing our bodies in the immensity of creation.

An unguessable distance beneath me, the curvature of the star vanished, and, still falling at three hundred kilometers per second, I was hanging motionless over an infinite plane stretching from horizon to horizon.

And then the last of the ice vaporized, and I was suddenly suspended in nothing, hanging nailed to the burning sky over endless crimson hori-

zons of infinity, and pain came like the inevitability of mountains—I didn't edit it—pain like infinite oceans, like continents, like a vast, airless world.

Jenna, now I remember. The odd thing is, I never did really connect in any significant way with Jenna. She was already in a quadrad of her own, a quadrad she was fiercely loyal to, one that was solid and accepting to her chameleon character, neither needing nor wanting a fifth for completion.

Long after, maybe a century or two later, I found out that Jenna had disassembled herself. After her quadrad split apart, she'd downloaded her character to a mainframe, and then painstakingly cataloged everything that made her Jenna: all her various skills and insights, everything she had experienced, no matter how minor, each facet of her character, every memory and dream and longing: the myriad subroutines of personality. She indexed her soul, and she put the ten thousand pieces of it into the public domain for download. A thousand people, maybe a million people, maybe even more, have pieces of Jenna, her cleverness, her insight, her skill at playing antique instruments.

But nobody has her sense of self. After she copied her subroutines, she deleted herself.

And who am I?

Two of the technicians who fit me into my spaceship and who assist in the ten thousand elements of the preflight check are the same friends from that drop, long ago; one of them even still in the same biological body as he had then, although eight hundred years older, his vigor undiminished by biological reconstruction. My survival, if I am to survive, will be dependent on microsecond timing, and I'm embarrassed not to be able to remember his name.

He was, I recall, rather stodgy and conservative even back then.

We joke and trade small talk as the checkout proceeds. I'm still distracted by my self-questioning, the implications of my growing realization that I have no understanding of why I'm doing this.

Exploring a black hole would be no adventure if only we had faster-than-light travel, but of the thousand technological miracles of the third and fourth millennia, this one miracle was never realized. If I had the mythical FTL motor, I could simply drive out of the black hole. At the event horizon, space falls into the black hole at the speed of light; the mythical motor would make that no barrier.

But such a motor we do not have. One of the reasons I'm taking the plunge—not the only one, not the main one, but one—is in the hope that scientific measurements of the warped space inside the black hole will elucidate the nature of space and time, and so I myself will make one of the innumerable small steps to bring us closer to an FTL drive.

The spaceship I am to pilot has a drive nearly—but not quite—as good. It contains a microscopic twist of spacetime inside an impervious housing, a twist that will parity-reverse ordinary matter into mirror-matter. This total conversion engine gives my ship truly ferocious levels of thrust. The gentlest nudge of my steering rockets will give me thousands of gravities of acceleration. Unthinkable acceleration for a biological body, no matter how well cushioned. The engine will allow the rocket to dare the unthinkable, to hover at the very edge of the event horizon, to maneuver where space itself is accelerating at nearly light-speed. This vehicle, no larger than a peanut, contains the engines of an interstellar probe.

Even with such an engine, most of the ship is reaction mass.

The preflight checks are all green. I am ready to go. I power up my instruments, check everything out for myself, verify what has already been checked three times, and then check once again. My pilot persona is very thorough. Green.

"You still haven't named your ship," comes a voice to me. It is the technician, the one whose name I have forgotten. "What is your call sign?"

One way journey, I think. Maybe something from Dante? No, Sartre said it better: no exit. "*Huis Clos*," I say, and drop free.

Let them look it up.

Alone.

The laws of orbital mechanics have not been suspended, and I do not drop into the black hole. Not yet. With the slightest touch of my steering engines—I do not dare use the main engine this close to the station—I drop into an elliptical orbit, one with a perimelasma closer to, but still well outside, the dangerous zone of the black hole. The black hole is still invisible, but inside my tiny kingdom I have enhanced senses of exquisite sensitivity, spreading across the entire spectrum from radio to gamma radiation. I look with my new eyes to see if I can detect an X-ray glow of interstellar hydrogen being ripped apart, but if there is any such, it is too faint to be visible with even my sensitive instruments. The interstellar medium is so thin here as to be essentially nonexistent. The black hole is invisible.

I smile. This makes it better, somehow. The black hole is pure, unsullied by any outside matter. It consists of gravity and nothing else, as close to a pure mathematical abstraction as anything in the universe can ever be.

It is not too late to back away. If I were to choose to accelerate at a million gravities, I would reach relativistic velocities in about thirty seconds. No wormholes would be needed for me to run away; I would barely even need to slow down my brain to cruise at nearly the speed of light to anywhere in the colonized galaxy.

But I know I won't. The psychologist knew it too, damn her, or she would never have approved me for the mission. Why? What is it about me?

As I worry about this with part of my attention, while the pilot persona flies the ship, I flash onto a realization, and at this realization another memory hits. It is the psychologist, and in the memory I'm attracted to her sexually, so much so that you are distracted from what she is saying.

I feel no sexual attraction now, of course. I can barely remember what it is. That part of the memory is odd, alien.

"We can't copy the whole brain to the simulation, but we can copy enough that, to yourself, you will still feel like yourself," she said. She is talking to the air, not to you. "You won't notice any gaps."

I'm brain-damaged. This is the explanation.

You frowned. "How could I not notice that some of my memories are missing?"

"The brain makes adjustments. Remember, at any given time, you never even use 1 percent of 1 percent of your memories. What we'll be leaving out will be stuff that you will never have any reason to think about. The memory of the taste of strawberries, for example; the floor-plan of the house you lived in as a teenager. Your first kiss."

This bothered you somewhat—you want to remain yourself. I concentrate, hard. What do strawberries taste like? I can't remember. I'm not even certain what color they are. Round fruits, like apples, I think, only smaller. And the same color as apples, or something similar, I'm sure, except I don't remember what color that is.

You decided that you can live with the editing, as long as it doesn't change the essential you. You smiled. "Leave in the first kiss."

So I can never possibly solve the riddle: what kind of a man is it that would deliberately allow himself to drop into a black hole. I cannot, because I don't have the memories of you. In a real sense, I am *not* you at all.

But I do remember the kiss. The walk in the darkness, the grass wet with dew, the moon a silver sliver on the horizon, turning to her, and her face already turned up to meet my lips. The taste indescribable, more feeling than taste (not like strawberries at all), the small hardness of her teeth behind the lips—all there. Except the one critical detail: I don't have any idea at all who she *was*.

What else am I missing? Do I even know what I don't know?

I was a child, maybe nine, and there was no tree in the neighborhood that you could not climb. I was a careful, meticulous, methodical climber. On the tallest of the trees, when you reached toward the top, you were above the forest canopy (did I live in a forest?) and, out of the dimness of the forest floor, emerged into brilliant sunshine. Nobody else could climb like you; nobody ever suspected how high I climbed. It was your private

hiding place, so high that the world was nothing but a sea of green waves in the valley between the mountains.

It was my own stupidity, really. At the very limit of the altitude needed to emerge into sunlight, the branches were skinny, narrow as your little finger. They bent alarmingly with your weight, but I knew exactly how much they would take. The bending was a thrill, but I was cautious, and knew exactly what I was doing.

It was further down, where the branches were thick and safe, that I got careless. Three points of support, that was the rule of safety, but I was reaching for one branch, not paying attention, when one in my other hand broke, and I was off balance. I slipped. For a prolonged instant I was suspended in space, branches all about me, I reached out and grasped only leaves, and I fell and fell and fell, and all I could think as leaves and branches fell upward past me was, oh my, I made a miscalculation; I was really stupid.

The flash memory ends with no conclusion. I must have hit the ground, but I cannot remember it. Somebody must have found me, or else I wandered or crawled back, perhaps in a daze, and found somebody, but I cannot remember it.

Half a million kilometers from the hole. If my elliptical orbit were around the sun instead of a black hole, I would already have penetrated the surface. I now hold the record for the closest human approach. There is still nothing to see with unmagnified senses. It seems surreal that I'm in the grip of something so powerful that is utterly invisible. With my augmented eyes used as a telescope, I can detect the black hole by what isn't there, a tiny place of blackness nearly indistinguishable from any other patch of darkness except for an odd motion of the stars near it.

My ship is sending a continuous stream of telemetry back to the station. I have an urge to add a verbal commentary—there is plenty of bandwidth—but I have nothing to say. There is only one person I have any interest in talking to, and you are cocooned at absolute zero, waiting for me to upload myself and become you.

My ellipse takes me inward, moving faster and faster. I am still in Newton's grip, far from the sphere where Einstein takes hold.

A tenth of a solar radius. The blackness I orbit is now large enough to see without a telescope, as large as the sun seen from Earth, and swells as I watch with time-distorted senses. Due to its gravity, the blackness in front of the star pattern is a bit larger than the disk of the black hole itself. Square root of twenty-seven over two—about two and a half times larger, the physicist persona notes. I watch in fascination.

What I see is a bubble of purest blackness. The bubble pushes the distant stars away from it as it swells. My orbital motion makes the background stars appear to sweep across the sky, and I watch them approach

the black hole and then, smoothly pushed by the gravity, move off to the side, a river of stars flowing past an invisible obstacle. It is a gravitational lensing effect, I know, but the view of flowing stars is so spectacular that I cannot help but watch it. The gravity pushes each star to one side or the other. If a star were to pass directly behind the hole, it would appear to split and for an instant become a perfect circle of light, an Einstein ring. But this precise alignment is too rare to see by accident.

Closer, I notice an even odder effect. The sweeping stars detour smoothly around the bubble of blackness, but very close to the bubble, there are other stars, stars that actually move in the opposite direction, a counterflowing river of stars. It takes me a long time (microseconds perhaps) before my physicist persona tells me that I am seeing the image of the stars in the Einstein mirror. The entire external universe is mirrored in a narrow ring outside the black hole, and the mirror image flows along with a mirror of my own motion.

In the center of the ring there is nothing at all.

Five thousand kilometers, and I am moving fast. The gravitational acceleration here is over ten million gees, and I am still fifty times the Schwarzschild radius from the black hole. Einstein's correction is still tiny, though, and if I were to do nothing, my orbit would whip around the black hole and still escape into the outside world.

One thousand kilometers. Perimelasma, the closest point of my elliptical orbit. Ten times the Schwarzschild radius, close enough that Einstein's correction to Newton now makes a small difference to the geometry of space. I fire my engines. My speed is so tremendous that it takes over a second of my engine firing at a million gravities to circularize my orbit.

My time sense has long since speeded up back to normal, and then faster than normal. I orbit the black hole about ten times per second.

My god, this is why I exist, this is why I'm here!

All my doubts are gone in the rush of naked power. No biological could have survived this far; no biological could have even survived the million-gee circularization burn, and I am only at the very beginning! I grin like a maniac, throb with a most unscientific excitement that must be the electronic equivalent of an adrenaline high.

Oh, this ship is good. This ship is sweet. A million-gee burn, smooth as magnetic levitation, and I barely cracked the throttle. I should have taken it for a spin before dropping in, should have hot-rodded *Huis Clos* around the stellar neighborhood. But it had been absolutely out of the question to fire the main engine close to the wormhole station. Even with the incredible efficiency of the engine, that million-gee perimelasma burn must have lit up the research station like an unexpected sun.

I can't wait to take *Huis Clos* in and see what it will really do.

My orbital velocity is a quarter of the speed of light.

The orbit at nine hundred kilometers is only a parking orbit, a chance for me to configure my equipment, make final measurements, and, in principle, a last chance for me to change my mind. There is nothing to reconnoiter that the probes have not already measured, though, and there is no chance that I will change my mind, however sensible that may seem.

The river of stars swirls in a dance of counterflow around the blackness below me. The horizon awaits.

The horizon below is invisible, but real. There is no barrier at the horizon, nothing to see, nothing to feel. I will even be unable to detect it, except for my calculations.

An event horizon is a one-way membrane, a place you can pass into but neither you nor your radio signals can pass out of. According to the mathematics, as I pass through the event horizon, the directions of space and time change identity. Space rotates into time; time rotates into space. What this means is that the direction to the center of the black hole, after I pass the event horizon, will be the future. The direction out of the black hole will be the past. This is the reason that no one and nothing can ever leave a black hole; the way inward is the one direction we always must go, whether we will it or not: into the future.

Or so the mathematics says.

The future, inside a black hole, is a very short one.

So far the mathematics has been right on. Nevertheless, I go on. With infinitesimal blasts from my engine, I inch my orbit lower.

The bubble of blackness gets larger, and the counterflow of stars around it becomes more complex. As I approach three times the Schwarzschild radius, 180 kilometers, I check all my systems. This is the point of no rescue: inside three Schwarzschild radii, no orbits are stable, and my automatic systems will be constantly thrusting to adjust my orbital parameters to keep me from falling into the black hole or being flung away to infinity. My systems are all functional, in perfect form for the dangerous drop. My orbital velocity is already half the speed of light. Below this point, centrifugal force will decrease toward zero as I lower my orbit, and I must use my thrusters to increase my velocity as I descend, or else plunge into the hole.

When I grew up, in the last years of the second millennium, nobody thought that they would live forever. Nobody would have believed me if I told them that by my thousandth birthday, I would have no concept of truly dying.

Even if all our clever tricks fail, even if I plunge through the event horizon and am stretched into spaghetti and crushed by the singularity, I will not die. You, my original, will live on, and if you were to die, we have made dozens of back-ups and spin-off copies of ourselves in the past, some versions of which must surely still be living on. My individual life has lit-

tle importance. I can, if I chose, uplink my brain-state to the orbiting station right at this instant, and reawake, whole, continuing this exact thought, unaware (except on an abstract intellectual level) that I and you are not the same.

But we are not the same, you and I. I am an edited-down version of you, and the memories that have been edited out, even if I never happen to think them, make me different, a new individual. Not you.

On a metaphorical level, a black hole stands for death, the blackness that is sucking us all in. But what meaning does death have in a world of matrix back-ups and modular personality? Is my plunge a death wish? Is it thumbing my nose at death? Because I intend to survive. Not you. *Me.*

I orbit the black hole over a hundred times a second now, but I have revved my brain processing speed accordingly, so that my orbit seems to me leisurely enough. The view here is odd. The black hole has swollen to the size of a small world below me, a world of perfect velvet darkness, surrounded by a belt of madly rotating stars.

No engine, no matter how energetic, can put a ship into an orbit at 1.5 times the Schwarzschild radius; at this distance, the orbital velocity is the speed of light, and not even my total-conversion engine can accelerate me to that speed. Below that, there are no orbits at all. I stop my descent at an orbit just sixty kilometers from the event horizon, when my orbital velocity reaches 85 percent of the speed of light. Here I can coast, ignoring the constant small adjustments of the thrusters that keep my orbit from sliding off the knife-edge. The velvet blackness of the black hole is almost half of the universe now, and if I were to trust the outside view, I am diving at a slant downward into the black hole. I ignore my pilot's urge to override the automated navigation and manually even out the trajectory. The downward slant is only relativistic aberration, nothing more, an illusion of my velocity.

And 85 percent of the speed of light is as fast as I dare orbit; I must conserve my fuel for the difficult part of the plunge to come.

In my unsteady orbit sixty kilometers above the black hole, I let my ship's computer chat with the computer of the wormhole station, updating and downloading my sensors' observations.

At this point, according to the mission plan, I am supposed to uplink my brain state, so that should anything go wrong further down the well, you, my original, will be able to download my state and experiences to this point. To hell with that, I think, a tiny bit of rebellion. I am not you. If you awaken with my memories, I will be no less dead.

Nobody at the wormhole station questions my decision not to upload.

I remember one other thing now. "You're a type N personality," the psychologist had said, twitching her thumb to leaf through invisible pages of test results. The gesture marked her era; only a person who had grown up before computer hotlinks would move a physical muscle in com-

manding a virtual. She was twenty-first century, possibly even twentieth. "But I suppose you already know that."

"Type N?" you asked.

"Novelty-seeking," she said. "Most particularly, one not prone to panic at new situations."

"Oh," you said. You did already know that. "Speaking of novelty seeking, how do you feel about going to bed with a type N personality?"

"That would be unprofessional." She frowned. "I think."

"Not even one who is about to jump down a black hole?"

She terminated the computer link with a flick of her wrist, and turned to look at you. "Well—"

From this point onward, microsecond timing is necessary for the dance we have planned to succeed. My computer and the station computer meticulously compare clocks, measuring Doppler shifts to exquisite precision. My clocks are running slow, as expected, but half of the slowness is relativistic time dilation due to my velocity. The gravitational redshift is still modest. After some milliseconds—a long wait for me, in my hyped-up state—they declare that they agree. The station has already done their part, and I begin the next phase of my descent.

The first thing I do is fire my engine to stop my orbit. I crack the throttle to fifty million gees of acceleration, and the burn takes nearly a second, a veritable eternity, to slow my flight.

For a moment I hover, and start to drop. I dare not drop too fast, and I ramp my throttle up, to a hundred meggee, five hundred, a billion gravities. At forty billion gravities of acceleration, my engine thrust equals the gravity of the black hole, and I hover.

The blackness has now swallowed half of the universe. Everything beneath me is black. Between the black below and the starry sky above, a spectacularly bright line exactly bisects the sky. I have reached the altitude at which orbital velocity is just equal to the speed of light, and the light from my rocket exhaust is in orbit around the black hole. The line I see around the sky is my view of my own rocket, seen by light that has traveled all the way around the black hole. All I can see is the exhaust, far brighter than anything else in the sky.

The second brightest thing is the laser beacon from the wormhole station above me, shifted from the original red laser color to a greenish blue. The laser marks the exact line between the station and the black hole, and I maneuver carefully until I am directly beneath the orbiting station.

At forty billion gravities, even my ultrastrong body is at its limits. I cannot move, and even my smallest finger is pressed against the form-fitting acceleration couch. But the controls, hardware-interfaced to my brain, do not require me to lift a finger to command the spacecraft. The command I give *Huis Clos* is: down.

My engine throttles down slightly, and I drop inward from the photon sphere, the bright line of my exhaust vanishes. Every stray photon from my drive is now sucked downward.

Now my view of the universe has changed. The black hole has become the universe around me, and the universe itself, all the galaxies and stars and the wormhole station, is a shrinking sphere of sparkling dust above me.

Sixty billion gravities. Seventy. Eighty.

Eighty billion gravities is full throttle. I am burning fuel at an incredible rate, and only barely hold steady. I am still twenty kilometers above the horizon.

There is an unbreakable law of physics: incredible accelerations require incredible fuel consumption. Even though my spaceship is, by mass, comprised mostly of fuel, I can maintain less than a millisecond worth of thrust at this acceleration. I cut my engine and drop.

It will not be long now. This is my last chance to uplink a copy of my mind back to the wormhole station to wake in your body, with my last memory the decision to upload my mind.

I do not.

The stars are blueshifted by a factor of two, which does not make them noticeably bluer. Now that I have stopped accelerating, the starlight is falling into the hole along with me, and the stars do not blueshift any further. My instruments probe the vacuum around me. The theorists say that the vacuum close to the horizon of a black hole is an exotic vacuum, abristle with secret energy. Only a ship plunging through the event horizon would be able to measure this. I do, recording the results carefully on my ship's on-board recorders, since it is now far too late to send anything back by radio.

There is no sign to mark the event horizon, and there is no indication at all when I cross it. If it were not for my computer, there would be no way for me to tell that I have passed the point of no return.

Nothing is different. I look around the tiny cabin, and can see no change. The blackness below me continues to grow, but is otherwise not changed. The outside universe continues to shrink above me; the brightness beginning to concentrate into a belt around the edge of the glowing sphere of stars, but this is only an effect of my motion. The only difference is that I have only a few hundred microseconds left.

From the viewpoint of the outside world, the light from my spacecraft has slowed down and stopped at the horizon. But I have far outstripped my lagging image, and am falling toward the center at incredible speed. At the exact center is the singularity, far smaller than an atom, a mathematical point of infinite gravity and infinite mystery.

Whoever I am, whether or not I survive, I am now the first person to penetrate the event horizon of a black hole. That's worth a cheer, even

with nobody to hear. Now I have to count on the hope that the microsecond timing of the technicians above me had been perfect for the second part of my intricate dance, the part that might, if all goes well, allow me to survive.

Above me, according to theory, the stars have already burned out, and even the most miserly red dwarf has sputtered the last of its hydrogen fuel and grown cold. The universe has already ended, and the stars have gone out. I still see a steady glow of starlight from the universe above me, but this is fossil light, light that has been falling down into the black hole with me for eons, trapped in the infinitely stretched time of the black hole.

For me, time has rotated into space, and space into time. Nothing feels different to me, but I cannot avoid the singularity at the center of the black hole any more than I can avoid the future. Unless, that is, I have a trick.

Of course, I have a trick.

At the center of the spherical universe above me is a dot of bright blue-violet; the fossil light of the laser beacon from the orbiting station. My reaction jets have kept on adjusting my trajectory to keep me centered in the guidance beam, so I am directly below the station. Anything dropped from the station will, if everything works right, drop directly on the path I follow.

I am approaching close to the center now, and the tidal forces stretching my body are creeping swiftly toward a billion gees per millimeter. Much higher, and even my tremendously strong body will be ripped to spaghetti. There are only microseconds left for me. It is time.

I hammer my engine, full throttle. Far away, and long ago, my friends at the wormhole station above dropped a wormhole into the event horizon. If their timing was perfect—

From a universe that has already died, the wormhole cometh.

Even with my enhanced time sense, things happen fast. The laser beacon blinks out, and the wormhole sweeps down around me like the vengeance of God, far faster than I can react. The sparkle-filled sphere of the universe blinks out like a light, and the black hole—and the tidal forces stretching my body—abruptly disappears. For a single instant I see a black disk below me, and then the wormhole rotates, twists, stretches, and then silently vanishes.

Ripped apart by the black hole.

My ship is vibrating like a bell from the abrupt release of tidal stretching. "I did it," I shout. "It worked! God damn it, it really worked!"

This was what was predicted by the theorists, that I would be able to pass through the wormhole before it was shredded by the singularity at the center. The other possibility, that the singularity itself, infinitesimally small and infinitely powerful, might follow me through the wormhole,

was laughed at by everyone who had any claim to understand wormhole physics. This time, the theorists were right.

But where am I?

There should be congratulations pouring into my radio by now, teams of friends and technicians swarming over to greet me, cheering and shouting.

"*Huis Clos*," I say, over the radio. "I made it! *Huis Clos* here. Is anybody there?"

In theory, I should have reemerged at Wolf-562. But I do not see it. In fact, what I see is not recognizably the universe at all.

There are no stars.

Instead of stars, the sky is filled with lines, parallel lines of white light by the uncountable thousands. Dominating the sky, where the star Wolf-562 should have been, is a glowing red cylinder, perfectly straight, stretching to infinity in both directions.

Have I been transported into some other universe? Could the black hole's gravity sever the wormhole, cutting it loose from our universe entirely, and connect it into this strange new one?

If so, it has doomed me. The wormhole behind me, my only exit from this strange universe, is already destroyed. Not that escaping through it could have done me any good—it would only have brought me back to the place I escaped, to be crushed by the singularity of the black hole.

I could just turn my brain off, and I will have lost nothing, in a sense. They will bring you out of your suspended state, tell you that the edition of you that dropped into the black hole failed to upload, and they lost contact after it passed the event horizon. The experiment failed, but you had never been in danger.

But, however much you think we are the same, *I am not you*. I am a unique individual. When they revive you, without your expected new memories, I will still be gone.

I want to survive. I want to return.

A universe of tubes of light! Brilliant bars of an infinite cage. The bright lines in the sky have slight variations in color, from pale red to plasma-arc blue. They must be similar to the red cylinder near me, I figure, but light-years away. How could a universe have lines of light instead of stars?

I am amazingly well equipped to investigate that question, with senses that range from radio through X-ray, and I have nothing else to do for the next thousand years or so. So I take a spectrum of the light from the glowing red cylinder.

I have no expectation that the spectrum will reveal anything I can interpret, but oddly, it looks normal. Impossibly, it looks like the spectrum of a star.

The computer can even identify, from its data of millions of spectra,

precisely which star. The light from the cylinder has the spectral signature of Wolf-562.

Coincidence? It cannot possibly be coincidence, out of billions of possible spectra, that this glowing sword in the sky has exactly the spectrum of the star that should have been there. There can be no other conclusion but that the cylinder is Wolf-562.

I take a few more spectra, this time picking at random three of the lines of light in the sky, and the computer analyzes them for me. A bright one: the spectrum of 61 Virginis. A dimmer one: a match to Wolf-1061. A blue-white streak: Vega.

The lines in the sky are stars.

What does this mean?

I'm not in another universe. I am in *our* universe, but the universe has been transformed. Could the collision of a wormhole with a black hole destroy our entire universe, stretching suns like taffy into infinite straight lines? Impossible. Even if it had, I would still see far-away stars as dots, since the light from them has been traveling for hundreds of years.

The universe cannot have changed. Therefore, by logic, it must be *me* who has been transformed.

Having figured out this much, the only possible answer is obvious.

When the mathematicians describe the passage across the event horizon of a black hole, they say that the space and time directions switch identity. I had always thought this only a mathematical oddity, but if it were true, if I had rotated when I passed the event horizon, and was now perceiving time as a direction in space, and one of the space axes as time—this would explain everything. Stars extend from billions of years into the past to long into the future; perceiving time as space, I see lines of light. If I were to come closer and find one of the rocky planets of Wolf 562, it would look like a braid around the star, a helix of solid rock. Could I land on it? How would I interact with a world where what I perceive as time is a direction in space?

My physicist persona doesn't like this explanation, but is at a loss to find a better one. In this strange sideways existence, I must be violating the conservation laws of physics like mad, but the persona could find no other hypothesis and must reluctantly agree: time is rotated into space.

To anybody outside, I must look like a string, a knobby long rope with one end at the wormhole and the other at my death, wherever that might be. But nobody could see me fast enough, since with no extension in time I must only be a transient event that bursts everywhere into existence and vanishes at the same instant. There is no way I can signal, no way I can communicate—

Or? Time, to me, is now a direction I can travel in as simply as using my rocket. I could find a planet, travel parallel to the direction of the surface—

But, no, all I could do would be to appear to the inhabitants briefly as a disk, a cross-section of myself, infinitely thin. There is no way I could communicate.

But I can travel in time, if I want. Is there any way I can use this?

Wait. If I have rotated from space into time, then there is one direction in space that I cannot travel. Which direction is that? The direction that used to be away from the black hole.

Interesting thoughts, but not ones which help me much. To return, I need to once again flip space and time. I could dive into a black hole. This would again rotate space and time, but it wouldn't do me any good: once I left the black hole—if I could leave the black hole—nothing would change.

Unless there were a wormhole inside the black hole, falling inward to destruction just at the same instant I was there? But the only wormhole that has fallen into a black hole was already destroyed. Unless, could I travel forward in time? Surely some day the research team would drop a new wormhole into the black hole—

Idiot. Of course there's a solution. Time is a spacelike dimension to me, so I can travel either direction in time now, forward or back. I need only to move back to an instant just after the wormhole passed through the event horizon, and, applying full thrust, shoot through. The very moment that my original self shoots through the wormhole to escape the singularity, I can pass through the opposite direction, and rotate myself back into the real universe.

The station at Virgo black hole is forty light years away, and I don't dare use the original wormhole to reach it. My spacetime-rotated body must be an elongated snake in this version of space-time, and I do not wish to find out what a wormhole passage will do to it until I have no other choice. Still, that is no problem for me. Even with barely enough fuel to thrust for a few microseconds, I can reach an appreciable fraction of light-speed, and I can slow down my brain to make the trip appear only an instant.

To an outside observer, it takes literally no time at all.

"No," says the psych tech, when I ask her. "There's no law that compels you to uplink back into your original. You're a free human being. Your original can't force you."

"Great," I say. Soon I'm going to have to arrange to get a biological body built for myself. This one is superb, but it's a disadvantage in social intercourse being only a millimeter tall.

The transition back to real space worked perfectly. Once I figured out how to navigate in time-rotated space, it had been easy enough to find the wormhole and the exact instant it had penetrated the event horizon.

"Are you going to link your experiences to public domain?" the tech

asks. "I think he would like to see what you experienced. Musta been pretty incredible."

"Maybe," I said.

"For that matter," the psych tech added, "I'd like to link it, too."

"I'll think about it."

So I am a real human being now, independent of you, my original.

There had been cheers and celebrations when I had emerged from the wormhole, but nobody had an inkling quite how strange my trip had been until I told them. Even then, I doubt that I was quite believed until the sensor readings and computer logs of *Huis Clos* confirmed my story with hard data.

The physicists had been ecstatic. A new tool to probe time and space. The ability to rotate space into time will open up incredible capabilities. They were already planning new expeditions, not the least of which was a trip to probe right to the singularity itself.

They had been duly impressed with my solution to the problem, although, after an hour of thinking it over, they all agreed it had been quite obvious. "It was lucky," one of them remarked, "that you decided to go through the wormhole from the opposite side, that second time."

"Why?" I asked.

"If you'd gone through the same direction, you'd have rotated an additional ninety degrees, instead of going back."

"So?"

"Reversed the time vector. Turns you into antimatter. First touch of the interstellar medium— Poof."

"Oh," I said. I hadn't thought of that. It made me feel a little less clever.

Now that the mission is over, I have no purpose, no direction for my existence. The future is empty, the black hole that we all must travel into. I will get a biological body, yes, and embark on the process of finding out who I am. Maybe, I think, this is a task that everybody has to do.

And then I will meet you. With luck, perhaps I'll even like you.

And maybe, if I should like you enough, and I feel confident, I'll decide to upload you into myself, and once more, we will again be one. ●

CUSTOMER SERVICE OR SUBSCRIBER ASSISTANCE

Please direct all changes of address and subscription questions to:



ASIMOV'S SCIENCE FICTION
P.O. Box 54625, Boulder, CO 80322-4625



REFLECTIONS ON LIFE AND DEATH

Our last story, "The Gallery of His Dreams" (September 1991), by the Hugo-award-winning former editor of *F&SF*, Kristine Kathryn Rusch, won the 1991 Locus Award for best short fiction. Ms. Rusch has had fifteen novels published under her own name. Her latest books include: *Hitler's Angel*, a mainstream hardcover written under the name Kris Rusch; *Star Wars: The New Rebellion*, a mass market paperback; *Star Trek: Day of Honor*, written with Dean Wesley Smith; and *Alien Influences*, a Science Fiction novel that was a finalist for England's prestigious Arthur C. Clarke Award.

"No," Sarah's mother said, her voice barely more than a whisper around the tubes. "You can't. They kill people in there." Sarah held her mother's good hand—the one without the IV. Small chips dotted her mother's face and body, each scanning vital signs. It made her look as if she had chickenpox.

The doctor was watching Sarah. The doctor was a thin thirtyish woman with nut-brown eyes and light brown skin. Her hair, a delicate blonde, was shoulder length and covered with a nearly invisible clean-net so no strands fell free.

"Sarah?" the doctor said, and it made Sarah wonder how a woman ten years younger than herself managed to sound make one word so condescending.

"Sarah—" her mother said again. "You can't."

"You can't go home," Sarah said.

"But you could take me."

Sarah closed her eyes. One more thing. It had taken all of her strength to get to the hospital each day before visiting hours closed. She had lost a day of work to be here this afternoon. Her secretarial job was rare, pre-

cious, and difficult. It also only paid a quarter of what she really needed. Besides, the children were doubled up in one room in her two-bedroom apartment. If her mother came to stay, someone would have to sleep on the couch.

Her mother's hand clutched, the bones cutting off the circulation in Sarah's fingers. Sarah opened her eyes. Her mother's skin was chalk-white; her lips almost blue.

"Please," she said.

"You didn't take Gram," Sarah said, and then bit her tongue.

"I don't think you need me any longer," the doctor said. "Page me, Sarah, when you reach a decision."

"It's not her decision to make," her mother said.

"What do you want to do, Mrs. Chomley?" the doctor asked, addressing Sarah's mother for the first time.

"I want to go home," her mother said.

"That's not possible," the doctor said.

"Then I want to go with Sarah."

The doctor looked at Sarah. Sarah looked away. How come the doctor, who usually ignored her mother, used a respectful title when she finally addressed her?

"Do you have other family?" the doctor asked.

"No," Sarah said.

"Then it looks, my dear," the doctor said, "as if it's up to you."

1986: Gram's backyard. Icicles hanging off winter trees, sleet making the air a grayish mist. The streetlights burned white, and the cold was so deep that Sarah could see her breath.

She couldn't move in her snowsuit and mittens. Gram sat beside her on the ice-crusted snow. They were going to make angels, but Gram had started crying. Sarah had never seen Gram cry.

"I don't see nothing burning," Sarah said, looking skyward. She'd seen the images all day. The happy astronauts waving as they carried their cases into the shuttle. The liftoff, and then the speck, exploding in the sky. She knew that when she threw something in the air, it came down. The higher she threw it, the longer it took. And Gram had said the shuttle was really high when it blew up.

"You won't, hon," Gram said. She had her arms wrapped around her knees. The tears made her eyelashes clump together. "The pieces have landed already. Far away. In Florida."

"Floor-e-da," Sarah repeated. "How come you are crying? Did you know them people?"

Gram shook her head. Then she tilted it back. "You can't even see the moon tonight," she said.

"There's a man in the moon," Sarah said.

"No, honey," Gram said. "But once upon a time, there was a man on the moon."

"Did you know him?" Sarah asked.

"No," Gram said. "But it sure felt as if I did."

The Martin Luther Extended Care Facility covered one city block near the old Dane County airport terminal. Sarah remembered when the entire area had been fields that were filled with the richest brown dirt she had ever seen. The MLECF was a new facility for middle- to low-income elderly. It covered the city block in small buildings, each stacked on top of each other, making the place a maze. The brochure said the design maximized available space. Sarah thought it maximized confusion.

It had been decades since she had been in a place like this. Not since she was a teenager, when nursing homes were still called nursing homes, and the places smelled of pee and antiseptic. MLECF smelled like roses. Nanotech hadn't met the technological promises made by its proponents in the early nineties, but it had achieved a sort of olfactory victory: Perfume companies had discovered a way to make good odors eat bad ones. It was an expensive but satisfying service, one that made life in the late twenties much more bearable than life in the nineties.

The hospital had given her a twenty-four hour reprieve. It was not charity: the reprieve was required by law for anyone who requested it. It snapped all the social services into action. A social worker had been waiting for her by the front door of MLECF.

The tour was scripted: she saw the rehab rooms, the private suites, the entertainment center, and the kitchen. Mobile residents could cook their own meals on small counters in special suites. The place was as lovely as its brochure, but she knew this part of the facility was designed to put her at ease.

Except she wasn't. She had seen no elderly.

"Where is everyone?" she asked the social worker when he brought her back to the front desk. He was a small man with graying hair and long, fashionable sideburns. His hands were the smallest thing about him—a child's hands really—soft and square and delicate.

"Privacy laws," he said. "We're not allowed to let outsiders see the residents without their permission."

"So when I visit my mother, will I be able to go to her room?" she asked.

"If you sign non-disclosure forms."

"And if I were to sign them today?" she asked. "Could I see the rest of the facility?"

His smile was small, tolerant, distant. "We don't have short-term forms," he said.

"I'm not making a short-term decision," she said. "This is my mother's life."

His gaze darted to her, then, and he sighed. "Come to my office, Ms. Chomley," he said. He went around the front desk through a narrow corridor and into a small cubicle with no windows. His desk was built into the wall, the computer screen larger than normal and rather old. Its component parts hummed, something she associated with the computers of her childhood.

He sat in the chair behind the desk, and she took the only other one, a wire seat with an arched back. It was not made for comfort. She perched on the edge of it, waiting for him to go on.

"Your mother was diagnosed with old age, am I right?" he asked.

"They said you didn't need to know," she said, "not unless I decided."

He shrugged. "It's logical. People with hope of recovery don't come here," he said.

"But you have rehabilitation rooms," she said. "What are they for then?"

He folded his small hands and rested them on the desktop. "They are for the handful of people who come here after surgeries, long illnesses, or comas. Not for people diagnosed as old."

"Then why do old people come here?" she asked.

"Make their last years as comfortable as possible," he said.

"Is that possible here?" she asked. "In one room?"

"One eighth of a room, Ms. Chomley," he said. "We don't have private rooms."

"But the suites—"

"Are for rehabilitation patients." He tugged on his sideburn, leaned forward, and whispered, "Do you love your mother, Ms. Chomley?"

"Of course," she said automatically, even though she wasn't sure it was true.

"Then take her home," he whispered. "Take her home."

1998: Hazlet's gym. A private club, converted from a row of seventies apartments by a local developer, designed for his tenants, but later opened to paying memberships. Nights and afternoons belonged to the students. Mornings from five A.M. belonged to the seniors.

"Gram," Sarah said, holding a five-pound weight against her chest. "I don't need this. I jog."

"Women need strength," Gram said. She was wearing gray sweats and had her long gray hair tied back with a red scarf. She was on her back, pressing thirty-five pounds, another elderly woman spotting her as she worked. "Jogging keeps the weight down, but it doesn't give you strength."

"I had self-defense in school," Sarah said.

"I'm not talking self-defense," Gram said. "I'm talking strength. To carry a box, to lift a carton. To be independent."

Sarah laughed. "I am independent," she said.

"Now," Gram said. "Wait fifty years. Independence is something you won't take for granted then."

The pizza box was lukewarm by the time Sarah got it to the apartment. The heating chip had burned out a mile away from home, leaving the pizza inside to cool. She pulled the apartment door open, tossed the box on the counter, and threw her coat over a chair.

Janie, her oldest, was studying, squinting at her palmtop. She wasn't supposed to use such a small screen, but Sarah couldn't afford anything larger. She knew it meant upgraded lenses for Janie's bad eyes, but the lenses were in the future. The computer expense was part of the present.

Her son, Keith, whom her daughters had nicknamed Scooter, was taking apart the motorized car she had given him for Christmas. The car had cost half a week's salary; she hoped he could reassemble it. He was humming along to a radio chip, the telltale cord—required of all in-ear objects—trailing down the side of his head like an errant strand of hair.

Trina, her youngest, was already in the kitchen, standing on a stool as she begged the cereal cabinet to release its lock. She hadn't figured out the new code yet. It would only be a matter of days. She generally figured out cupboard codes by day five.

"I called," Sarah said. "I told you I'd be late."

"House screen's out," Scooter said.

"Yeah," Trina said. "He took out the sound chip for his car."

Sarah suppressed a sigh. "Scoot," she said. "We don't own the house screens. Why didn't you use your radio chip?"

"'Cause I need that," he said. He stretched out one bare foot, scraping car parts against the hardwood floor.

"Well, see what you can do with the heater on this box," she said. "I don't want to pay for microwave time if I can help it."

"It burn out again?" Janie asked, setting her palmtop aside. "You gotta stop going there."

"I gotta stop ordering the special," Sarah said. "They always put it in the oldest boxes."

Scooter put the car parts beside the baseboard, then got up, brushed himself off, and came into the kitchen. He slid the box off the counter, and stuck a finger in the cardboard. Sarah pulled Trina off her chair and set her on the floor.

"Guys," she said. "I have a question. Can we make room for your grandmother here?"

"I thought you didn't like her," Janie said.

"Yeah," Scooter said. "Why should we make room for her when she didn't make room for *her* mother?"

"Does she know the cupboard codes?" Trina asked.

Sarah bit her lower lip. She hadn't realized she had put those thoughts

in her children's brains. "I went to that center today. The social worker advised me to bring her home."

"Why?" Janie set her palmtop on the end table.

"Shut it off, please," Sarah said, and Janie did. Behind her, cardboard ripped and Scooter cursed. Sarah ignored him.

"Why are you supposed to bring her home?" Janie asked again.

"Because she'd be in a room with seven others," Sarah said. "Because it's no place to spend the rest of your life."

"What do you care?" Scooter asked. "She never did anything for you."

Sarah sat down. She was shaking. "She raised me," Sarah said.

"Yeah, but she didn't want to," Trina said. Sarah looked at her daughter. She didn't remember telling Trina why her mother had left Sarah with Gram at various points in her life.

"You always said she was too busy living her life to care about someone else's," Scooter said.

"She's my mother," Sarah said, feeling defensive.

"So?" Janie asked. "That doesn't mean you have to take care of her."

"I know," Sarah said, and sighed.

2003: Her mother's living room. Sarah was standing; her mother was sitting on the white, pink, and blue couch bought at an auction the year before.

"I'll take care of her, Mom. Instead of paying some home, give me room, board and some pocket change. That way she can stay home."

Her mother, small and delicate, still wore her hair long. It reached the middle of her back, a gray and black wave as chaotic as her mother could be. The black hairs were straight. The gray was coming in curly.

"Have you ever watched anyone die of cancer?" her mother asked.

"No, but—"

"I have. When I was married to Jack." Jack. Husband number two. The rich one. The one who died on her, and left all his money to his son, a man two years older than Sarah's mother. Jack had achieved perfection before he died. The men after that had no hope of catching up. "I did volunteer work at the hospital."

As if Sarah didn't know. Her mother was proud of the volunteer work, prouder of that than of her paid work. The volunteer work meant she had time on her hands, time to give away. The paid work—done to support her daughter from her ill-advised rebound of a third marriage—never measured up.

"They used to have fans on in the cancer ward to keep the stink down." Her mother wrinkled her small nose as if she could still smell the memory.

"Mom, that was in the seventies."

"It hasn't gotten any prettier," her mother said. "And you don't have

the stamina for it. Better that Gram goes where people can take care of her. Better to let her die with dignity, on clean comfortable sheets, in a clean comfortable room."

"Shouldn't she have her family with her?"

"She'll have her family with her," her mother said, staring past Sarah at something on the street. "We'll visit her every day."

"I'm going to take care of her," Sarah said.

Her mother shook her head. "It's your choice," her mother said. "It's not something I would do."

"I know," Sarah said. "You always did what was convenient for you."

"Not fair, Sarah."

"But true," Sarah said.

Sarah clutched the entrance documents in her right hand. As she entered her mother's hospital room, her fingers tightened, crumpling the pages. Her mother was asleep. The skin stretched across her tiny face, revealing the angles and hollows. Through the translucent surface, Sarah thought she could actually see bone.

—Her strength is failing, the first doctor had said. The pneumonia was just a stage. We can cure the stages, but they will continue. We can stop any disease she gets except the one that's going to kill her. She's got old age. No one recovers from that.

—Old age isn't a disease, Sarah said.

—Oh, but it is, the doctor said. *For a reason we don't understand, the cells fail to regenerate. Or they regenerate improperly. We can stimulate regeneration, but only in certain parts of the body. We can't touch the brain cells. And no matter what we do, some parts always fail. The heart muscle atrophies. It's as if total degeneration is built into the system. Your mother's degeneration has started. We can do nothing to end it except—end it.*

—She's not that bad, is she?

The doctor shrugged.—*I've been secondary approving physician on cases less advanced than hers. Once it reaches this stage, the future is certain. Death.*

—The future is certain now, Sarah said. You'll die. I'll die.

The doctor shook his head. *That's not certain. There is research in Sweden that shows degeneration can be prevented.*

—Then why can't we use that treatment on Mother?

The doctor's look was withering.

—Because she can't afford it? Sarah asked.

The doctor took a step back, as if Sarah's tone startled him.—*Because it's experimental. And even if it weren't, she's not a candidate. Degeneration is advanced in her. The Swedish treatments begin before the internal organs show advanced signs of wear. For some, that's age twenty. For others, that's forty-five. For no one is it seventy. No one at all.*

—So you're saying kill her, Sarah said.

The doctor didn't meet her gaze. *What's more humane? Letting her die now, with all her faculties in place, or waiting until she shuts down, part by part?*

—Isn't that what death is? Sarah asked.

—Death, the doctor had said as if he were quoting a textbook, *is the cessation of life.*

"Mom?" Sarah said. She sat beside the bed, and put the papers in her lap. "Mom, wake up. It's me."

Her mother's eyes opened. They were yellowish, bloodshot, exhausted. "Sarah?" she whispered.

Sarah nodded. "I brought papers here from the extended care center."

"Papers?" Her mother's voice was stronger now. She dug her hands into the mattress and pushed herself up. "What kind of papers?"

"Entrance agreements. They have the regular agreements there on computer. I told them you weren't linked here."

Her mother frowned. "Have you read them?"

"Yes," she said. "They seem fine. All they ask is that you agree to the rules of the center."

"And what are those rules?" her mother asked.

"They're listed in the regular document," Sarah said.

Her mother crossed her arms over her sunken chest. "I won't sign," she said.

"If you don't sign, you can't go," Sarah said. "The hospital has the legal right to put you on the street."

"I'll go home," her mother said.

"Mom." Sarah had been dreading this moment. "They rented your apartment. I had to put your stuff in storage."

"I pay my bills," her mother said.

"No, Mom," Sarah said. "Your weekly allowance has been coming here, for the deductible."

"You didn't pay my rent?"

"I can't afford my rent."

"But you can afford storage."

"It's cheaper than rent," Sarah said.

Her mother's lower lip trembled. "They'll kill me in that center."

"People die there, yes, Mom, but the officials don't kill anyone."

"Read the forms," her mother said.

"Mom, they have to have ways of dealing with the critically ill."

"I'm not critically ill," her mother said.

"Your doctor says you're dying," Sarah said.

"My doctor's wrong." Sarah's mother raised her chin, a slight gesture of defiance.

"That's denial, Mom."

"No, Sarah," her mother said. "I'm alive, and I like breathing. And I'm not afraid of what the future holds. I want to see each phase through, the way God intended."

Sarah shook her head. Her mother didn't understand. She couldn't. If she did, she wouldn't want to die, bit by bit, piece by piece. "Gram—"

"Your grandmother was a coward," her mother said.

"Gram was thinking of us," Sarah said.

Her mother's eyes narrowed. "Was she? Was she really?"

2003: Gram's house. An EMS truck was parked in the driveway. Sarah's mother stood in front of the door, arms crossed. Her hair was falling out of its ponytail and her right cheek was streaked with blood.

Sarah parked her car across the street, and ran to her mother. Her mother held out one blood-stained hand.

"You can't go in," her mother said.

"But you called—"

"I did," her mother said. "Before I knew. Gram's in the truck."

"Then she's all right?" Sarah started for it, but her mother grabbed her arm.

"No," her mother said, her voice oddly calm.

"I want to see her."

"No," her mother said.

"What happened?" Sarah asked, panic eating at the edges of her stomach.

"She used your grandfather's handgun. She always said she would. Dramatic to the end." Her mother shook her head slightly, as if she couldn't quite believe it. "She called to say good-bye, and not to worry. That's when I called you. That's when I came here. The neighbors heard the shots. They'd already called 911."

"But she's all right," Sarah said.

Her mother's eyes met Sarah's. "She's gone."

Sarah frowned. "But I told her I'd take care of her. Yesterday. I told her I'd be here, and we'd get through it."

Her mother blinked hard and wiped at her nose. "Your grandmother said to tell you that she didn't want you to waste your life."

"But I wanted to help," Sarah said.

"I know." Her mother put her arm around Sarah, not noticing as the blood on her hand stained Sarah's white sleeve. "But you can't any more. And now we have to get through this. Together."

Sarah sat at her desk and scanned the documents the social worker had e-mailed her from MLECF. Her hand was shaking as she scrolled, her brain overloading from the legalese.

She would have found nothing if the social worker hadn't highlighted two sections for her.

1. Patient grants MLECF power of attorney in all matters pertaining to health.

and

50. Patient agrees to allow doctors and social workers to determine, in tandem, when resources allotted exceed gains returned.

She printed up both and handed them to her cubicle mate, Lars. He scanned them. "So?" he asked.

"What do they mean to you?" she asked.

"They mean the facility has the right to put a patient to sleep if they can no longer afford treatment."

"That's legal?"

"Sure," he said. "Has been for as long as I can remember."

"And it doesn't shock you?" she asked.

"Why should it?" he said. "These places have been doing it for years."

"I didn't realize," Sarah said.

"Not many people do," Lars said. "It's just an efficient way of dealing with a burden on society." He handed the hard copy back to her. "Why'd you ask?"

"For my mother," she said.

"Oh," Lars answered, and had the grace to flush.

1990: Spring thaw, Lake Wingra. First meeting of the Wingra Seniors' Polar Bear Club. Sarah wore her down jacket, unzipped, and a pair of fleece-lined boots. Her mittens dangled from strings, and the sweater her mother had made her wear that morning was too hot. But her face was cold. An icy mist was falling, making it feel as if the air were spitting.

Near the water's edge, four old men wearing rubber boots stomped away the last of the ice. A doctor stood beside the men, shaking his head as he watched.

Gram was beside Sarah. She wore a heavy car coat over her sweats. In her arms, she clutched a fluffy towel, still warm from the dryer.

"You're nuts, Gram," Sarah said.

"I'm living, baby doll," Gram said. She handed Sarah the towel, then peeled off her car coat, and her sweatshirt, revealing a one-piece suit underneath.

"That water's cold, Gram. What if you get a heart attack? What if you get sick?" Sarah lowered her voice. "What if you die?"

"Then I'll go out happy," Gram said. She shucked off her shoes and her sweatpants. Sarah took those too.

"Life's one big adventure, Sarah. You gotta live it the best way you can," Gram said, and ran for the frigid water.

Sarah stood at the door of her mother's hospital room and watched her mother sleep.

Old age.

It was going to kill her, and no matter what the doctor said, it would probably kill all of them eventually.

It didn't matter how you died, Gram used to say. What mattered was how you lived.

And how had she lived these last few years? Like her mother. Selfish and focused and angry at the hand life had dealt her. Ever since Greg left—

Greg. She hadn't let herself think his name since he walked out, leaving her with three children and an apartment she couldn't afford on her own. No one had one-caretaker apartments any more, and she had been struggling against that for years, angry at Greg, angry at the world.

Not proud of herself like Gram would have been.

Proud for beating the system.

Sarah swallowed. "Mom?" She came closer to the bed. "Mom, wake up."

Her mother smiled. The dots on her cheeks moved as she did. "I was awake. I was watching you."

Sarah started. She hadn't expected the same scrutiny she was giving her mother.

"Children grow away from you, you know," her mother said.

"I know," Sarah said. She'd been watching hers do that every day.

"From the minute they leave the womb, they're not yours any more. They're strangers."

Sarah approached her mother. "Are we strangers, Mom?"

Tears floated in her mother's eyes.

She touched her mother's arm. She had lived inside this body once. It had been her first home. How could she let someone else discard it, as if it had never been? "I'm going to bring you to my place," Sarah said.

Her mother blinked, but her cheeks remained dry. "I'm not going to be noble like your grandmother was."

Sarah smiled. It was against her mother's nature to be noble. She squeezed her mother's arm. Gram's suicide had been awful.

"Nobility's overrated," Sarah said.

1986: Gram's backyard. Sarah put her pudgy arms around her Gram's neck and wiped her tears with one grimy mitten. "How come you're crying for the people in that shuttle if you didn't know them?" she asked.

Gram shook her head, then buried her face in Sarah's hair. "I don't know," she said. "Sometimes lives and dreams are so mixed up together, and you don't realize it until it's too late."

Gram was holding her too tight. Sarah squirmed. Gram let go. Sarah sat on Gram's knee.

Gram smiled at her. "You don't know what I'm talking about, do you?"

Sarah shook her head. Sometimes big people said all kinds of stuff she didn't understand.

"It's okay," Gram said. "You'll figure it out soon enough."

The hide-a-bed cost half a month's salary, but Sarah figured she could afford it, with her mother's allowance going toward rent. The living room was crammed with knick-knacks Sarah had once hoped she would never have to live with again. Her mother's heavy, ancient television set with its curved screen sat in the hallway, waiting to be carried to the back bedroom. The bedroom had been Sarah's. From that night on, it would be her mother's.

And, surprisingly, Sarah didn't mind. This was the chance she had missed with Gram. This was the chance she needed with her own mother. Too many people watched life's beginning and shied away from its end.

"I still don't get it," Janie said as she carried in the last box from storage. "Why doesn't she get her own apartment?"

"They don't make new leases with people over seventy, stupid," Scooter said. He was rummaging through the previous box, seeing if there were any old chips. Sarah reached into an open one beside her and brought out an old attachable house sound system. She handed it to Scooter. He squealed with delight and looked for the chip.

"I don't see why she has to come here," Janie said again.

"Because I asked her," Sarah said.

"You don't even *like* her, Mom," Trina said. She was bouncing on the hide-a-bed, testing its springs.

Sarah took Trina's arm, and gently stopped her bouncing. Trina let her, almost as if she had been expecting it. After three children, Sarah knew how to parent.

But her mother had only had one. Sarah had been an accident, unplanned. Sarah's children were planned, but being raised the same way. By one woman alone.

"I don't know her any more," Sarah said. "I don't know if I like her or not."

"Then why bring her here?" Janie asked, sitting beside Trina.

Sarah looked at her daughters, and wondered how they would feel after their grandmother was gone.

When their own mother was dying.

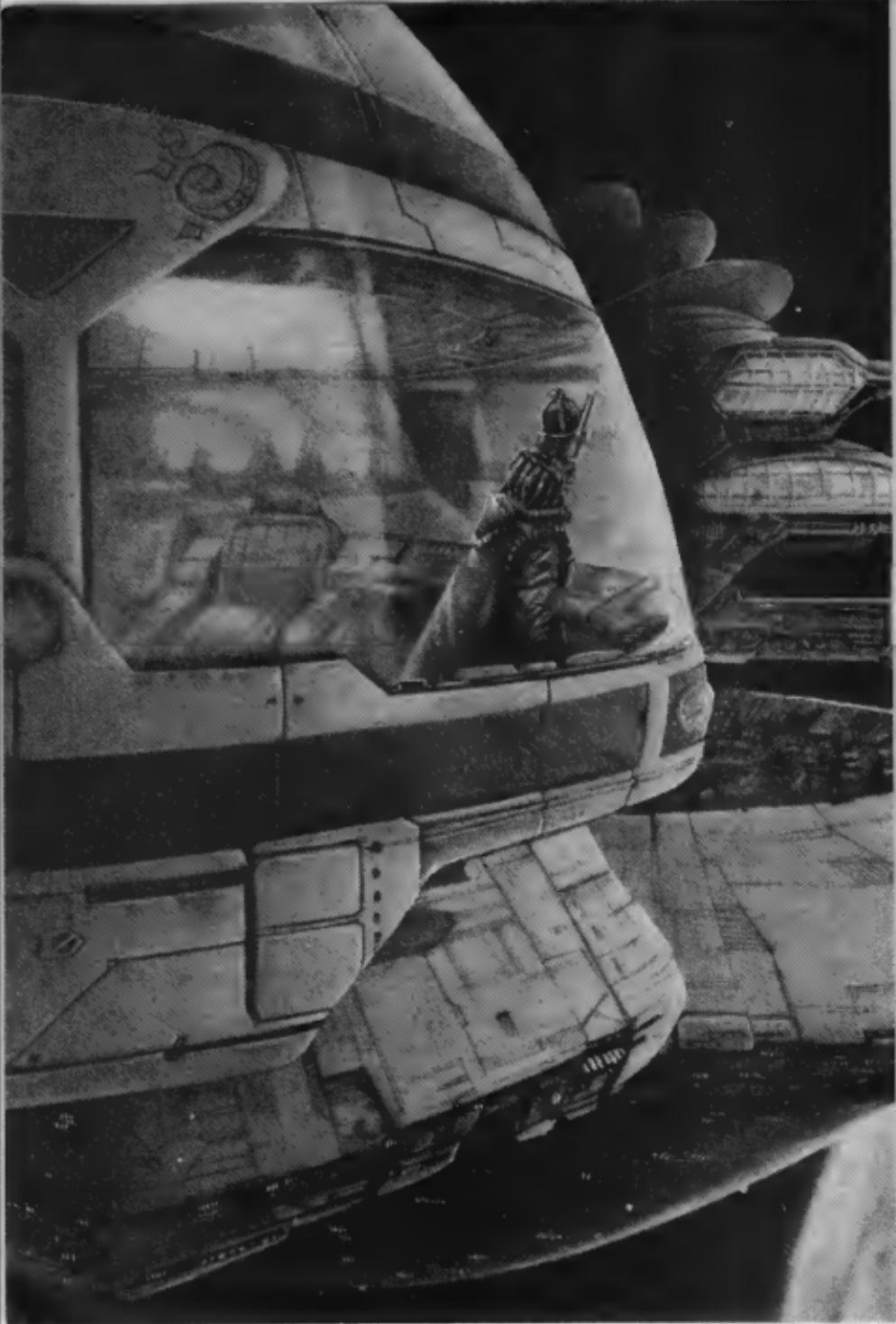
The law said they weren't responsible, any more than she was.

"I'm bringing her here," Sarah said, "because life's an adventure."

She had forgotten that. All these years, she'd forgotten it. It had taken her mother, of all people, to remind her.

"An adventure?" Janie asked, as if she had never heard that before.

"An adventure," Sarah said. "I'd just forgotten, until now." ●



R. Neube

As tragedy, media coverage, and political upheavals
continue to take their toll on monarchies, future
commoners will be lucky to see the crown fall to a
man as just as

KING MORON

Illustrated by Darryl Elliott

ELLIOTT'77

Richard IV sat in his favorite spot, the navigation bubble. Occasionally, a sensory array or telescope would swing, forcing him to squeeze into another corner. He took care never to get in the way of the machinery, lest a member of his crew rag him for being stupid.

The king watched the gleaming point of light that was Earth. The speck tugged at him. Folks said that World War III had left the planet so radioactive that your eyes would get tumors should you stare at it too long, even from Mars orbit. He was certain that that was bullshit, but he wore shades, just in case.

They had treated monarchs differently when they had ruled on Earth. With awe, to judge from the old movies he loved to watch. The king was glad he hadn't lived back then. It was exhausting enough to be a figure-head aboard the *Windsor*. The thought of signing his name all day and starting wars and sending his enemies to the Tower terrified him.

His watch beeped five times. The signal chivvied him to the captain's private study.

"Your Highness." Captain Jones seized his useless arm to tow him toward a tall, grey passenger. The captain bowed as she said, "May I introduce Senator Skiepe, chairman of the Martian External Committee."

King Richard shook hands with his good hand, as bile flavored his mouth. The king remembered this politico from the old days. While Richard was living on the streets and in the parks of Mars, the senator had dispatched vigilantes to lecture the homeless with clubs and fire-bombs.

As king of the luxury liner *Windsor*, Richard IV could theoretically command Captain Jones to airlock the yerp. She might do it. More probably, he would be forced to endure daily sessions with Doctor Li again.

The senator and king exchanged pleasant babble for a few minutes. Richard felt confident that he could handle the social aspect. Each day he spent forty-five minutes with Ensign Madcar Pradesh, practicing such graces. Madcar could charm the venom from a cobra.

"I'm surprised. I thought ya'd be spouting Limey like yer Cap'n. Ya talk like a regular guy."

"I spent thirty-one of my forty years on Mars," replied the king.

"That's what I read. Not that our records are clear about the details."

"Ya . . ." The king chewed his tongue for a moment. "You know it. It's not easy being Martian at heart and a king by birth." He swallowed that "fersure" that still tried to erupt at the end of each sentence.

"Is it true ya were raised in the Eternal Light?"

Captain Jones fired up an alien smoke, uncomfortable with the senator's directness. She hovered protectively, ready to insert herself between the duo.

"My father was a member of the Light. I was fourteen before I escaped the cult. I hiked three hundred klicks overland to Asheville."

The king reined his memory in before he actually recalled those wasted years of praying and having the sin beat out of him. The long march was an equally sour memory. His two best friends had died of exposure in the Martian outback.

"The rumors of child abuse and ritual sacrifice have been documented by our undercover agents. We'll be neutralizing the cult soon. As a leader, ya must realize how divisive religion can be. When we destroy the Eternal Light, it would be helpful if their most famous victim issued a statement to confirm how evil the bastards are."

"I see." Sweat cascaded down the royal back. Vid cameras terrified him.

Captain Jones fingercombed her crimson hair. "His Majesty's time is at a premium. Why should he publicly relive an extremely painful episode of his life?"

The king sat, willing himself to shrink. Maybe then they wouldn't notice him. He was generally ignored whenever people got down to business.

"Mars would be willing to acknowledge him as King of the Britons."

"The Martian Anarchy will support the restoration of a monarchy?" Jones laughed.

New Turin and Caesar poleis have already pulled out of the EuroUnion. The five French poleis are ignoring the Union's legislation. In a few years, it will be each orbital city for itself. It only stands to reason that New London or one of the other Limey poleis will seek a non-political leader. My colleagues appreciate the value of a Brit king with Martian sensibilities."

"Quid pro toe," said the king, laughing when the other laughed, though it cramped his stomach. Didn't he say it right? The phrase joined so many others in the "do not repeat" category.

"I assume you have a draft of the statement you'd like His Majesty to make." The captain palmed the memory crystal with the celerity of a dope dealer. "The Privy Council will have to review the text. If it passes muster, we shall have the tape ready before the *Windsor* arrives at L-5."

The king scratched his nose as a prelude to escaping the senator. The captain scratched her nose, acknowledging his signal. She made an excuse for him, one of her many responsibilities. After another round of handshaking, the king fled.

In a blue corridor, he encountered a group of tourists from Deimos who were hopelessly lost. Some bowed. Some saluted. Everyone bubbled and babbled. Cameras snapped like machine guns.

The king was the reason the *Windsor* booked each of its 180 suites—regardless of the economy—at thrice the going rate. The Parliament had booted the monarchy in the twenty-first century, but it still couldn't touch the cachet of royalty. People paid big for encounters such as these.

It was child's play matching the tourists' color-coded ID's with directions to their suites. Offering his good arm to a matron, he guided them most of the way.

The king entered his suite. He double-locked his hatch before sitting in front of a computer. A timid finger pressed ENTER. The machine's wallpaper reproduced a graphic from a Lunar news program. KING MORON! read the headline beneath the unflattering photo. It'd been one of several media debacles that had taught him to keep his mouth shut. He had ordered the image installed in the computer as a reminder.

It wasn't as if he were really a moron, though learning had never been easy for him. Kidnapped from his mother at the age of two, he had spent twelve years with the Eternal Light. Other than the Testimony of Brother Jim and the Oregon Reformed Bible being read to them morning, noon, and night, there had been no education. Knowledge, the cult espoused, was evil. After escaping the Light, Richard had been too busy surviving on the streets to educate himself.

He banged the keys with a single finger, following the cue card the brigadier had drawn for him. The screen flickered. Awkward fingers attached a throat mike and headset. A picture formed slowly, playfully. Below it, letters formed, burning red to green to yellow. He tried to sound out the word, but only articulated noises. When the picture finished forming, he blurted, "Horse!"

At this rate, King Richard IV would master reading in a scant nine years.

His pen rasped across a pad, copying the letters. He cursed the loss of his left arm's usefulness. Nature hated reprogramming a southpaw. The computer estimated it would be another eight years before he'd possess legible handwriting.

At least he had his name down pat.

A lesser man would have given up. However, lesser men weren't kings of a luxury liner, once of England, once of Wales, once of Scotland, once of the world.

Of course, kings occasionally cried.

The primary responsibility of the king was lunch. No one expected a Royal to be awake for breakfast. Dinner was held in the Royal supping cabin, where four of the richest or most famous passengers would join him. However, lunch was the great equalizer. Every passenger gathered for lunch beneath the floating, effulgent balls of light generated by an Ir-lane machine.

The king circulated, table to table. Hands shook, brows and cheeks were kissed. He answered a few questions, if they were easy. He basked in their good will. He deployed his tricks as warranted—a panhandler's breeze, Madcar's charm, the personal nuggets gleaned by Brigadier Wil-

fort-Smythe. He seldom forgot a grandchild's name, or for whom a passenger worked.

The king never ate lunch; his nervous stomach rebelled against solid food in public. He drank an ocean of hot tea, though he hated its taste. The passengers expected it, and a long sip could buy him time to match one of the brigadier's stock answers to a perplexing question.

Brigadier Wilfort-Smythe had all the answers.

Once, when he was tired and pouty, he'd blown off the brigadier during one of her eternal briefings. She'd casually pulled a knife and rammed it through her forearm. "You are *My King*," she said, face as solid as a glacier. "I swore to your mother, *My Queen*, that I would find and protect you." She yanked the bloody knife out of her arm and waved it in front of his prominent nose. "I will drive this steel into my eye before I see *Our Monarchy* humiliated because *My King* is too lazy to fulfill his *obligation* to the throne!"

He believed her. The brigadier was the last Royal Commando.

King Richard IV stopped cold at Table 31. Ray-man wore an Esobar suit, but the aura of the streets still clung to him. When his broken-yolk eyes of blue met the king's greys, they twinkled. He hoisted his glass to the king.

"I wan ya to know how hopping it is to be breaking bread with the likes of ya." Ray-man winked. His palsied hand trembled Chablis onto the deck.

King Richard nodded, recalling how Ray-man had towed him out of Dugan Park seconds before vigilantes swept into the Hooverville of plastic crates and "vanished" everyone they caught. He owed the elderly man his life.

The king extended his hand for a long shake. "Nice to meet you—"

"Citizen Summe, Yer Highness. I hope we can talk later about yer charity work. I've seen yer Homeless Hotel in Stanton. That's work ya can be proud of, fersure."

"I am proud."

The king turned abruptly to a couple who reeked of ancient money. A hand shook, a hand kissed. They asked if Trudi Ambersian would be the next queen. He shook his head mournfully and whispered about the actress's drug habit. Enough said. Junkies couldn't wear the crown, as Elizabeth III had proven. A trio of fashionable young wendies nearly caressed his hand off while they stuffed notes into his pocket.

Before going to the next table, the king detoured to a waiter's island to fetch a glass of juice. The Navigator caught the signal and alerted the Maitre d', who drew his stun gun. Richard then realized that the apple juice was the wrong signal and dashed over to the D' to cancel the alert.

"The bald rake with palsy," he whispered. "Says his name is Summe, but it's not. How the devil does a streeter get the long green for our ride?"

"Streeter?" asked the D', pretending that the stun gun was a whisk and brushing the royal jacket with it.

"A homeless person. Tell the brigadier to investigate him."

He went to Table 32. "My pardons. The apple juice was from concentrate. I will not tolerate second-rate products for my guests on the *Windsor!* In these desperate times, it is imperative that we maintain our standards!"

Fill in the blank and it worked as flawless gaffe cover.

He was glad there were but forty-four tables to go.

"Your mother and her dearest friend shared a dorm room at Kramden University, your father, often the same plate at dinner. I shot her right where you're sitting after she stabbed *My Queen*. Old friends can be deadly!"

The brigadier twisted her short, raven braid. In her simple cotton shift and sock-shoes, she looked more like a school girl than a thirty-eight-year-old commando.

Rumor had it that the brigadier was the illegitimate daughter of the king's maternal grandfather. She had grown up on the ship, leaving to attend the Trade Commission Academy and to serve a five-year tour with the Dyb' as a grunt. Embittered by the aliens' wars, she came home wealthy, bemaled, and moderately famous. The brigadier could have slipped into a hundred careers; instead, she became the last Royal Commando.

"I inspected his suite. No weapons. I called Deimos. Your friend has served time for being a persistent unemployable. No violence. No links to rads or Euros or any crim outfit."

"He's not a frigging assassin. He carried me to the hospital when—" The king flapped his useless arm.

Odd, he thought, that the memory didn't gnaw him. He'd taken down two of the thugs before they overwhelmed him. Even while they stretched his arm over a railing and clubbed it to a pulp, he rejoiced that he had dropped two of them. By contrast, the four other times the gang had robbed him constantly appeared in his nightmares. Then, he'd behaved like a victim and forked over whatever they wanted.

"My King, that Hapsburg was virtually a sister to your mother. You no longer have the luxury of accepting old friends at face value."

"Bring me Ray-man. You don't have to make faces. Trust no one. I promise to stay out of your line of fire."

She tapped the Monet behind which hid a security room. Positioning a chair just so, she studied the angle as her thumbnail clacked against her teeth. "He should sit here."

"Yes, *My Brigadier*." She disappeared into the security room.

The king picked up the phone; it was gold, with huge buttons. It was

his mother's, as were most of the furnishings. Like museum artifacts, he'd kept them to remind him of someone he'd never known. The kitchen immediately answered.

"May I have two of your stalest doughnuts and two glasses of powdered milk. Yes, powdered. Yes, stale. Yes, I'm pulling a royal prank. Thank you."

The dumbwaiter beeped. King Richard removed the tray and closed the heavy sliding door. It continued beeping until he double-latched it. No sense having an armored suite only to have a shaft door come loose in an emergency.

Using a remote, he clicked the TV to the channel monitoring the air-lock that served as his front door. Ray-man sat on the deck, scratching his bald, liver-spotted head. It was the same indolent posture the king had seen him assume in the Stanton jail. He pressed a button to open the hatch.

Ray-man sauntered into the room, unimpressed by the surroundings. He waved casually, as if they were bumping into each other in Dugan Park. The streeter in silk slumped into the chair pointed to by the king. He picked up the milk and doughnut.

"Like old times, eh boyo? 'Cept the milk ain't watery enough."

"Who paid for your ride? The clothes? Did you win the lottery, Ray-man?" He concentrated on keeping the haunting drawl from his speech.

"Down to biz from the get-go, eh. Ya haven't changed, Ricky. Okay, I can play that game. There was a riot on Kerrigan Polis couple years back. A mob broke into the Grainer ship 980 and butchered over 7000 of them." Ray wiped his nose on a silk sleeve.

"And?" The king shifted in his chair.

"The security detail was pulled off the docks just before the riot. The rioters were armed from the polis' arsenal. The mob numbered hundreds, yet only five scapegoats are being put on trial."

"So?" The king sipped his milk. The taste opened his mouth's eye to the mission where he and the legion of streeters in the Dugan Park district breakfasted.

"The Kerrigan Council masterminded the attack. Yet nobody cares because the victims were Grainers! They're packed like sardines in those grain transports, shuttling from polis to polis to collect their charity. Only reason the navies don't blow 'em all to hell is the Trade Commission. Only reason the TC cares is that our alien *buddies* expect humanity to be civilized and care for the unfortunate."

The king nodded while his stomach cramped.

"Those Grainers are the Earthers nobody wanted—the peasants, the unschooled, the criminals, the loonies, and the stupid. They are more homeless than we ever were in our park."

The mere word "Grainer" made the king uncomfortable. The alien Dyb'

had stripped a fleet of grain transports of their star drives before giving them to humanity as temporary shelters for the tsunami of refugees pouring from Earth in the wake of World War III. Two decades later, most of the refugees still lived aboard those ships. Many carried twenty-five thousand in hulls no larger than his own *Windsor*.

Like many, the monarch preferred to think of them as Gypsies; their nomadic lifestyle *their* choice. Just as the pedestrians in Stanton had preferred to think of him as a junkie in order to dismiss their guilt as they passed him on a corner panhandling.

"Still a daydreamer, eh, Ricky? When the vigilantes came a-swooping through our park, who came to save us?"

The king shrugged. A tear dangled from the corner of his eye. Blood stains had been the only evidence left in the park. A lot of his friends vanished that night. As he would have, save for this canny old man.

"Nobody was brought to justice," Ray-man spat on a Bokhara rug, "for those murders! Just as none of the leaders of the Kerrigan massacre will be punished, because no one cares! If ya'd been king then, at the park, what would ya have done?"

King Richard the Moron sighed for the dead. What *would* he have done?

"Nobody cares about seven thousand Grainers. Maybe nobody will ever care. What would ya have done for them, Ricky?"

"If I was a real king, I guess I would muster an army and fly to L-5 and bring them a little justice. No-bless-ooo-bilge." He didn't know what the phrase meant, but he knew it was an important quality for a monarch.

"But ya *are* flying to L-5. Maybe ya don't need an army. A little brain power could turn the trick."

"How? I'm a frigging joke. I can't do anything! I'm scared shitless that any minute I'll end up on the news again." He walked over to the 'puter and banged up the King Moron wallpaper. "I'll talk to the Fisc. We can contribute some money to the 980."

"Ya can do better than that."

"How come the Grainers call their ships by numbers instead of names?" asked the king. His pulse exceeded Mach One.

"It ain't gonna help to distract me, boyo. They don't name 'em because that's admitting those sardine cans are their homes forever. Numbers keep 'em temporary."

"I'm sorry I haven't done enough for our people."

"Bag that guff, Ricky. There's nothing ya can do for us. Ya *can* do something for those Grainers."

The king leaned against the wall and stared at his shoes. His memory churned images of the vigilantes "cleansing" Dugan Park. The screams echoed through his imagination. Two decades, and the government of Mars still protected those murderers. The homeless had no king to protect them.

Seven thousand dead. Grainers did not have kings either. Nobody cared about the homeless, wherever they endured their lives of casual misery.

"What should I do?" asked the king.

The wizened sage of the streets told him.

After Ray-man departed, King Richard IV realized that the old man had never told him who had financed his journey. Another simple task blown.

The Monet swung away from the wall. The brigadier emerged. Her rifle cracked against her elbow. She cursed and flexed her limbs.

He wiped tears of frustration away as he turned to face the portrait of his mother, Queen Guinevere. Her brow was furrowed, her mouth pruned. However, it was her eyes of watery grey, of watery fear that spoke to him. If naught else, they shared those eyes. Guinevere the Damned, the media called her. She had had her son stolen and her parents, aunts, and brother murdered during the fad of royal assassinations. She had been murdered by her best friend over a love triangle.

Nonetheless, being the Damned was better than being the Moron.

"Why didn't she have other children after I was stolen? *Better* children?" The king spoke quietly, not truly wanting to know.

"She tried, but there was a virus. Your father's hygiene was never . . . acceptable. I carried a couple of her fertilized eggs, but they didn't take. My King, you're the best we've got."

He shrugged again. "What do you think of Ray-man's scam? Would it work?" The portrait of Guinevere the Damned appeared to wink. He peered closely, but it was only a trick of his tears.

"It won't work." She marched across the suite with a crisp step. The brigadier hesitated in front of the hatch. "I don't think it will work." The hatch hissed open. When it stuck, she kicked it. "I'll look into it."

"So where is the camera?" The king held the glove up to the light. It weighed next to nothing. The shuttle vibrated for a moment.

"Don't worry about it. I borrowed it from a friend in TC Intell. It's the latest Irlane tech." Brigadier Wilfort-Smythe tugged it out of his grip and forced it over his gnarled hand. She slipped a signet ring over the slick material, fussing with his sash and its extra loop that cradled his maimed arm.

Richard the Moron checked his thinning white hair. It'd been white ever since Stanton Public Health sprayed Dugan Park with insecticide to kill collard beetles. Most of the streeters had suffered ephemeral white hair (overlooking the future tumors), but the chems had reacted permanently with him.

The luck of a Royal.

Captain Jones banged her head on a duct as she ducked into the cabin.

"There's something wrong with the shuttle. The Grav has a nasty fluctuation. No sense taking chances, I'll dock with the jets. As soon as we get back to Taylor, I'll take bids for an overhaul."

The brigadier clicked her teeth with a thumbnail. "We should wait until we return to Deimos. If there are any repercussions, I'd hate to leave our only shuttle dry-docked."

"Why is it a *dry* dock? Do they use water or ice in other docks?" He snapped his mouth shut when he noticed how they were looking at him.

"There's a yacht dogging us," said the captain. "It doesn't show on radar. I've picked it up a couple of times on visual, but it dropped back."

"My yacht is in the shop," declared Madcar with a laugh.

The brigadier chewed her lower lip as Madcar sprayed another layer of explosives over her torso. As she waved a hair-drier over it, the deft makeup brush of the ensign blended the edges with her skin tone.

"We are being pushed like a pawn," observed Madcar. "The yacht belongs to the same hand playing the beggar Summe."

"Did the beggar leave the *Windsor* after we docked with Taylor?"

"No, Summe hasn't left his suite." The captain brushed lint from the royal sideburn. "He placed a call to one of the Lunar Habitats—I forget which one. He asked directory assistance for a Beatrice Charmine, but there was no listing."

"Ouch! Be careful, Madcar!"

"You must stand still, please." The ensign pierced the explosive surrounding her belly button and inserted a small diamond stud. "Try not to bump into anything. This detonator is extremely sensitive."

"I'm not an idiot," snapped Brigadier Bomb. "Well, who is this Charmine?"

"BellLunar crashed ninety seconds after the call. Who the devil would do something like that?" asked the captain.

"It must have been a nested program triggered by the query. Crashing the moon's communications network will be news across the solar system, a signal for someone like that yacht behind us. Forget Summe. He's obviously expendable as far as the brains behind this are concerned. Forget the yacht. We'll deal with them later. Forget everything but the mission at hand."

King Richard fingercombed his hair. "Don't know much about chess, but if a pawn makes it to the other side of the board, it becomes a king."

"This is *not* a game! What do you have to remember, Your Majesty?"

"I twist the ring to start recording. It has only seven minutes of memory, so I wait until we begin talking dirt." The king had spent the entire night rehearsing his role. It showed in the bags under his grey eyes.

"What else?"

His brow furrowed. "If you yell, I have six seconds to get on the floor, under furniture if I can. After you blow up, I scream about terrorists and

run back to the dock." The king wiped his sweating brow. "What must you remember, My Brigadier?"

"A king should say we, not I," chided Madcar.

Commando eyes blinked with astonishment. Her head tilted to one side. "What are you talking about?"

Ensign Madcar laughed and twisted his shaggy white mustache. "He means you should not kamikaze your sweet ass unless it is truly necessary. You have to admit you are too, oh, shall we say, too *enthusiastic* at times."

"Our most valuable asset is *not* to sacrifice her life unless it is *absolutely required!*" commanded the king. He stared at the glove and its huge ring, wishing he understood how the recorder worked.

"My duty is to protect *My King*." The brigadier stood straight; her 130 centimeters suddenly seemed to double. Such was the power of confidence. "I once led a team into an Irlane HQ to liberate a Dyb' general. I lost my lover and my best friend, but I came home with the general. Don't concern yourself with me."

Pradesh slapped her stomach. "You shall *not* return, should you use this."

"The enemy is L-5, top drawer tech. I wouldn't get three steps with a conventional weapon, even a plastic knife. They know all the tricks, so we have to deploy new ones."

"Madcar, you must teach me how to play chess after this is over."

The ensign turned away from the king so he could roll his eyes. "Yes, sire."

They stopped the brigadier at the outermost office. In lieu of weapons, Kerrigan Security sported vat-grown muscles implanted by the ton. The brigadier smiled her crooked smile, giving him the high sign. Upon his yell, she would go through the muscle mob like a machete through butter. She needed no bomb to equalize the likes of them.

The mayor's avarice was obvious. It wasn't every day that a billionaire moron visited their orbital city. The mayor took him by the arm, touting the investment potential of Kerrigan's factories.

Once inside the inner reception office, the mayor dallied. It didn't take a genius to notice the ceiling panels. Similar panels covered the royal air-lock. Their sensory webs could scan visitors down to the DNA in their dandruff flakes. Only alien technology could defy the sensors.

The mayor nodded as he spoke, as if his neck were a spring. Leading the Royal into the inner chamber, he introduced the two members of the Council. The king instantly forgot their names, despite the exhausting briefing he had received during the shuttle flight to the orbital city. A troika, Pradesh had called them. Kerrigan had reduced the usual seven-member council in the name of economy—or so the voters had been told.

The mayor dusted his winged chair before he sat. King Richard remained standing. He cleared his throat.

The troika shared one characteristic: large, dead eyes. The mayor was painfully athletic; he limped slowly on knees destroyed by sports. The blonde woman was painfully Aryan; her skin was so white it nearly glowed. The blue man was merely painful to look at; his dye job appeared fresh. Dead eyes all. Multimillionaires all, they were the primary owners of the touted factories.

"There is one defining difference that separates Kerrigan from the hunnerds—" He coughed his accent away. The blonde woman chewed her knuckles to keep from laughing. "—the *hundreds* of other poleis. You alone have solved the Grainer problem. It is . . ." The rehearsed lines poured from his lips until he was interrupted.

"If only we could take credit for our citizens' common sense," said Aryan. "Withal, we have suffered terribly from the Trade Commission's arbitrary retaliations. Our industry has lost several important contracts."

The king lifted his mauled arm, concentrating lest they distract him from the job at hand. "Do you know who did this to me? A damned Grainer! He should have never been on Mars, but he'd been smuggled off one of those garbage scows. We took the first timid steps to segregate society's losers. We thought that was protection enough, but we were wrong. Now, they fly throughout the solar system like cancer cells loose in the bloodstream, waiting to infect whatever they touch."

King Richard IV adjusted the lay of his numb hand. The ring twisted accidentally. Not now! he fretted. The temperature felt as if it'd risen 50 degrees.

"Why haven't you had that arm fixed?" asked Blue. His pale eyes avoided looking directly at the king's imperfection.

"I keep it to remind me." He lied smoothly. "I befriended a Grainer, and this was my reward."

"A Grainer was once smuggled into our city by a bleeding-heart priest. She caused an outbreak of TB-3." Blue dabbed his forehead with a monogrammed hankie.

"The Euro—" Thingee, he almost said. He picked a strand of lint off his sash as Madcar had taught him. What did they call their legislative body? "The European poleis around Venus are coming unglued. I've been approached by some of my Britons. When the Union disintegrates, I'll be king to more than a luxury liner. One of the most critical issues I shall face is the charity we are forced to give these interplanetary vagabonds."

"The Trade Commission has no right to *order* a sovereign polis to supply these bums!" The mayor sprayed spit as he shouted.

"There's really nothing to say," said Aryan. She shifted in her chair as if her doctor had prescribed napalm for her hemorrhoids.

"Fear is the secret! Parasites are cowards by their very nature. My only complaint is how damned *long* the people waited before they did something about them!" Blue bayoneted the air with a manicured finger.

What else was he supposed to say? How could he have forgotten his lines?

"How did you get away with the riot? I blurt the smallest indiscretion and the media seizes upon it for tomorrow's lead story across the solar system. How did you keep your roles secret?"

Blue pressed his thumbs against the tabletop until they turned white. The mayor rubbed his knees. Aryan leaned forward.

"Have you considered your kingdom's future trade policy?" she said. "The dissolution of the European Union will cause massive disruptions in the commercial network."

The king masked his surprise. Claiming that his Britons wanted him as a ruler seemed absurd when his brigadier had first suggested it. However, first the senator and now the troika sounded convinced it would happen in the foreseeable future.

"Senator Skiepe wouldn't leave me alone on our flight to Taylor Polis. I'm being actively wooed by the Martians." The king felt his audience stiffen at the mention of their hated rivals. "But who can trust them? My Privy Council plans to establish close relations with poleis and habitats from Venus to Neptune. Earth is long dead. It is absurd that we continue with the same political groupings that destroyed the Earth—the Europeans around Venus, the Americans of L-5, the Sino-Jays around Saturn. Look at the moon. Russians, Mexicans, Indians, Arabs, and all those others have forgotten the old ways and become Lunars. Look at Mars. Hillbillies, Kurds, Catalonians, Serbs, Afghans, and Mayans have become Martians."

"Is there a point to this?" asked Blue.

The king couldn't think of one. Panic made him dizzy. "My Britons will embrace whoever wishes to be our friends."

What had he forgotten? Madcar had said something about a short-term something. Why couldn't he remember? Dead eyes stared at him. Sweat cascaded down his chest.

Aryan stroked her long chin with longer fingers. "Independence could be very expensive."

"In the short-term, I can mortgage the Windsor for several billion. In addition, my extensive holdings are worth twice that. Generous loans can be floated. My kingdom will be a cash customer."

"Cash always has friends." The mayor laughed at his wit.

"If my kingdom diverts resources to Grainer charity, we won't be able to buy what we need for our citizens. If we defy the TC and refuse to supply the losers, we'll face economic sanctions. Either way, my subjects' standard of living will drop, and my reign will be over. I need to know how you arranged the riot and scared away the Grainers. Lend me the mastermind of your riot."

Aryan tented her hands in front of her face. "The Lunars and factions of the L's are suffering from the same sociological centrifugal pressures as the EuroUnion. When our alliance flies apart, we, too, will need friends."

"Governments must confer and debate. A monarch does business with a handshake. I'm prepared to sign a trade agreement right this instant. Granted, the treaty will be with the Crown, not my future kingdom. However, once my people raise me to my rightful station, they must acknowledge my obligations as their own."

The mayor rose and limped to his side. A powerful arm wrapped the king. A dead eye winked. "There's a new order coming. Either you embrace it, or you are crushed. For the sake of humanity's future, we must eliminate the weak and unworthy in order to assume our rightful position in the galaxy. What humanity needs is leadership with *vision!*"

King Richard IV smiled. "I may not be smart enough to have the kind of vision you do, but I can recognize winners when I see them."

"I think we can do business." Blue stood, his fingers brushed Aryan's shoulders. She shivered. "These leeches have to be taught self-reliance, even if it kills them!" His laughter infected them all, one by one.

"Perhaps we should franchise our system!" declared Aryan.

The guest arrived in the airlock four minutes before the shuttle slipped free from the dock. Captain Jones fired the waste-gas jets, rotating the vessel smoothly. The Grav kicked in. A girder moaned. The shuttle dipped to port before acceleration sent everyone grabbing for an anchor.

The airlock intercom sizzled. "Have you got that damned hatch fixed yet?"

Brigadier Wilfort-Smythe banged the switch. "Give us a few more minutes. Sorry about the inconvenience."

The king struggled with his tangled restraints, trying to escape his chair. He studied the commando as she inserted the gem from his ring into a reader. When her brow furrowed he cringed. Had he screwed up the recording? She chewed the tip of her braid; he gnawed his nails.

Madcar slapped the royal hand. "A monarch never shows his nervousness. Do this." He cupped a hand over his jaw and slit his eyes. Fingers slowly stroked his chin. "That is a thoughtful pose."

"Yes, Fa—" The king had almost said father.

The elderly ensign smiled broadly. His shaggy mustache trembled. Madcar Pradesh rested his hand on Richard's shoulder. "You did well, Your Highness."

"It's a good start, but hardly enough to convict, even in the press. Who is *this* clown?" asked the brigadier, pointing at the airlock.

Madcar replied, "His name is Brunner, Alfredo Karl, a retired security operative of the Trade Commission."

"Spies don't retire."

"He is wanted on Mars for the assassination of Senator Miller. The last six years he has been living on Kerrigan. No visible means of support. No visible connection with the riot."

"Ample leverage," declared the brigadier as she left.

The king watched the monitor. The airlock hatch opened. Brunner stuck out a muscular arm to shake hands. Whereupon, a kick threw him across the chamber. The last Royal Commando leapt to his side, applying a lead pipe to his knees before grabbing the scruff of his tailored suit and dragging him out of the airlock.

The yerp screamed into the royal cabin. Slamming his stubble-covered head into a bulkhead, the brigadier tore off his clothes in lieu of frisking. She sat on his chest, an ice pick in her hand. Its tip rested on the corner of his left eye. The spy became very still.

"I broke your legs as a professional courtesy. I didn't want you to entertain any idea of escape. You have two choices: *one*, I torture you to the verge of death and we turn you over to the Martians; *two*, you make a full confession about the *980*."

He snarled and tried to punch her. She contorted and allowed his momentum to impale the fist on her ice pick. With the grace of a ballerina, she rose in a flurry of kicks that spun the spy like a top. He came to a stop with her foot on his throat.

"I will not kill you, but there won't be enough nerve tissue left in your spine for an implant. You'll be dead from the neck down while you spend the rest of your life in a Martian prison. I'm certain your cellmate will help you in the shower."

"On the other hand—"

The brigadier hopped off the spy's throat, glowering at her monarch. "My King, you have nothing to say to this pro-fes-sion-al!" Brown eyes flashed as she kicked the prisoner for each of those last syllables.

Her tone frightened the king, but he continued, "Oh, but I do. Citizen Brunner, if you cooperate, I'll buy you passage to any colony, world, or poleis outside Sol System. Say yes in the next minute and I shall include one million dollars in pocket money."

"Look me in the eyes," commanded the commando. She bent and pierced one of the spy's nostrils.

"It's a matter of cut-outs!" sobbed the spy. "You sieve the police database for the right criminals to puppet. A few bucks and they'll assemble all the rabble you need."

"Where did the money come from?"

"Three blind mice. I have tapes at a postal drop on Mobil Habitat. I knew if something went wrong, they'd sacrifice me. I can give you the Council on a platter."

"Citizen Brunner, you're going to be very rich, and very famous, very

soon," said King Richard IV. He wanted to laugh, but he was too busy trembling.

He sat in a corner of the navigation bubble, watching the ships in the holding lane around L-5. At the top of their arc, they crossed the white-flecked orb of Earth. Their blinking lights brought to mind Christmas trees he'd seen in movies.

The king held his reader, twitching its controls to run the AP story Madcar had pulled off the wire. Was there really a wire? he wondered. Everybody talked about it, so it had to be out there. Did it reel out of the back of the ship? No, that would be silly. Only a poleis or habitat would have the space necessary to store that much wire.

The bulletin began with the best thirty-eight seconds of Brunner's four-hour confession. King Richard IV sat beside the spy. He was glad the brigadier had not allowed him to wear the summer crown as he'd wished. The purple uniform shorn of all ornamentation made him look serious and smart.

King Richard's speech took seconds. "In this age of confusion, it is easy to forget there is right, and there is wrong. Murder is always wrong. It is that simple. We cannot allow murder to go unpunished."

A headline filled the screen. He knew the words by heart because the brigadier had read them to him a dozen times. And he could read . . . some of them.

KING RICHARD THE JUST CRACKS THE CASE OF THE 980, said the headline.

"The Just! I like it," he said to the Earth overhead. "Maybe the Lion-hearted would be better, but Just is okay. That's more important than being smart. Isn't it? You had millions of the smartest people who ever lived, and they nuked the hell out of you. Maybe if there had been more just people, you and your billions would still be alive today."

King Richard the Just checked his watch. Lunch was an hour away. He could hardly wait! ●

We appreciate comments about the magazine, and would like to hear from more of our readers. Editorial correspondence should include the writer's name and mailing address, even if you use e-mail. Letters can be e-mailed to 71154.662@compuserve.com or posted to Letters to the Editor, Asimov's, 1270 Avenue of the Americas, New York, N.Y. 10020. Letters may be shortened and edited for publication. The e-mail address is for editorial correspondence only—questions about subscriptions should be directed to Box 54625, Boulder, CO 80322-4625.



CALIBAN IN FERRAGAMOS

The print of my foot has changed—
The soft-edged signature my body leaves
As evidence of its passage
Across moist sand or a bath mat
Or the smelly concrete
Beside a swimming pool.
Looking down I wonder
What kind of creature could produce
Such a picture of itself.
Some of the toes are missing,
Others splayed at monstrous angles,
The ball sharply divided
Like a goat's hoof.
My Caliban has awakened,
And is feasting on my bones
Secretly while I smile and chat
At cocktail parties.
Nobody knows this except me.
I keep my shoes on.

—Nancy Etchemendy



Kandis Elliot

EVOLUTION IN GUADALAJARA



The distressing thing about Kandis Elliot's new story is "how much of it isn't fiction. The Virtual Harvesters and their capabilities, for example. El Cappa and Manantlán.

The rats of Birge Hall (to a point). Nonetheless, one of the traditional roles of SF is to act as a bellwether, to suggest where things are going, and how things might be if left to evolve *in situ*." Ms. Elliot continues to write SF and mystery stories, and to draw pictures for such; she recently won a Science Fiction Age Readers' Choice Award for Best Novelette.

Illustration by Kandis Elliot

" • R apido, Nezzy! Faster!" Ziggy never asked, directed, talked, or orated. He shouted, the man with vocal cords of Polysteel. "If we get there before power poles and wells are sunk, we can ward off development of the hillside, if not the flats. IWT guys can set up a million-dollar bird-watching post out here, maybe even restore some of the native trees—what the hell's their address? *Oh yeah, Inter-national Wilder-ness Too-urs at-dot*—" Bang, bang, bang, like a chant his callused fingers pounded out a code on the long-suffering laptop's grease-corroded keyboard.

Our propane Volkswagen clattered past the outskirts of Guadalajara on roads recently transcended from burro trails by the anointing of lava gravel, palm-sized stones that might as well have been edge-up machete blades, considering the tire slashing they did. The car managed to avoid the most severe lacerating, which was fortunate because Inés, behind the wheel, was looking not at the road but at the steep volcanic flanks rising ahead, and Ziggy was pounding furiously on his laptop, in between wrenching and generally fruitless twists of its comsat transceiver. I was stuck, as usual, in the back seat with The Royal We. I started stroking her fur backward, raising sparks and risking the bloodletting promised by her flattening ears. Transceiver reception cleared.

Ziggy kept up a stream of snarled profanity, his fingers bang-banging out messages and counter-messages as rows of digits danced on the dim little LCD screen. "Projections have over a hundred thousand new constructs up there by Christmas," he said through his teeth. "That's economic efficiency in the capitalist marketplace for you. No sewage, no water, no power—"

"Here comes the line now!" Inés held the rearview mirror steady and aimed more or less rearward for a moment. The vibration of the car on the road immediately torqued the mirror cattywampus as soon as she let it go; 99 percent of the time it reflected candy wrappers, ZIP disks, half-eaten tortillas coated with coagulated stuff, and here and there a little patch of gray that was the actual dashboard. Inés poked her head out the window and squinted back through the trail of ochre dust, never mind about steering the car. "*jAguas!*" she gasped, squinting.

Ziggy, me, even The Royal We were looking by this time, The We lashing her tail and flattening her ears again as though some Mexican dog pack had managed to escape the city taco vendors and were howling on our rear bumper. I could just make out a hazy line of poles about two miles down-slope and gaining on us.

"Step on it, Nezzy," Ziggy yelled. The instant he had met Inéz he'd used the nickname. Inéz once told me she thought he simply had a speech impediment, and eventually considered it a brain impediment. She had more trouble with "The Royal We," which in truth did result in a syntax nightmare—How's We today? Is We a good kitty? Will The We permit her

well-trained human servant to stroke The Royal We's royal personage? "I'll give 'em a tourist center—" Ziggy hammered on the laptop's tight, tiny keys—"that's a concession. Fifty million new tourist pesos coming in every season alone, two hundred million a year from rich—ah, hell, they're going to beat us by a country mile." He'd glanced backward again.

Power lines were popping up along the east side of the road as fast as the eye could follow. Two thick black cables sizzled as they connected the poles, threading the crossbars almost before any materialized. With a whooshing roar the power lines passed us and within moments vanished up the slope and around the mountain road's next hairpin turn. Scrub trees along the roadside blipped out of existence.

When we reached the plateau, which yesterday had been home to two or three plywood shacks and a half-dozen foundations, we found more than twenty adobe ranch homes, yards enclosed by plastered cinder-block walls, and some forty new foundations. Little blaze-orange flags were blooping up in rectangular formations all over the slopes of the old volcano. The power lines followed them around the crest. Cattle with floppy ears, goodly horns, and dazed expressions wandered among the thorn bushes and excavation mounds of dynamited lava grit. The air was still; few people had moved into their new homes. Water and sewage never kept up with power lines, and around Guadalajara it often never came at all to the flanks of the surrounding peaks.

Inéz turned off the VW's wheezing engine and we all tentatively got out. The Royal We spat at a pushy cow that was a little too brave, protecting a half-grown calf by snorting and pawing twenty yards off. Ziggy's normally loud voice boomed like cannon fire in the stillness, making the displaced cattle start with alarm.

"Damn-na-tion! Just a day too late. Another couple of projections on tourist dollars and we'd've stopped it in its tracks."

"It might not be too late, Doctor Zygidaynus," Inéz said, pointing to the third house down the rutted, stone-littered construction road. "Somebody already wants out."

The red adobe-look house was a nice ranch, very Central-Mexico, with an extensive cooking patio and surrounded by a tastefully designed wall that was topped with broken glass inset into the mortar. As we watched, rose bushes jabbed at agave shoots to take over the trampled yard; passion-flower vines twirled like angry rubber bands up the wickerwork patio pillars. A potted palm suddenly cracked the bottom of its pot and sprouted upward three feet, knocking a boat-tailed grackle from his perch on the eaves. Across the red side of the never-tenanted house was painted a whitewashed "Se Vende."

"Doesn't matter," I said. "If the owner can't sell it right off, the homeless will just move in. Nobody's going to come up here to chase them away. I doubt if any of these places has a building permit."

"Of course they don't," Ziggy snarled. "People building houses on what they call wasteland isn't any skin off the law's ass. Land is to be dominated and populated, Bible says so. And better to siphon off the excess population into the mountains than have it living on the curbs—" he went on for another few minutes, Inéz and I knowing better than to interrupt one of his sarcastic tirades about population versus land ethics.

At length we piled in the car and headed back to the central city. Toward the bottom of the mountain we noticed two new pollo frito stands, a cervecería, a Pemex station, and four drive-in automated teller islands, each for a different bank, none of which had been there when we started our ascent up the mountain, three hours ago. Inéz lifted the mirror and we all watched them occlude behind us as we drove over the lava out-backs and into the thick, egg-yolk haze engulfing Guadalajara.

Our rented lodgings faced Avenida de la Paz, the historic heartline of Guadalajara. The grounds were now guarded by one of the ubiquitous glass-shard-topped walls, but it was once a rich opal miner's villa. The "mansion" today seemed built for dwarves or munchkins, especially when inhabited by two normal-sized gringos, their liaison, live-in maid, cook, and companion animal; however, its eight rooms and spreading patio were considered extravagant luxury in 1830. As though the city were still tethered to that era, even in the midst of downtown brick, asphalt, traffic, and smog we were awakened each morning in the gray of early dawn by roosters crowing.

This morning I came out to sit by the villa's palm-shaded pond-cum-swimming pool. About waist-deep and four strokes across, the pool's tepid water was a beautiful copper-sulfate blue, its central fountain with a pretty sound of spilling water cloaking the growl of the city beyond the wall. As I pulled up a dew-damp lounge chair I noticed that something had just been bathing in the pond. Not a human, at least not a gringo who valued the health of his bodily access orifices; ducks, probably, or pigeons. The wet tiles held a fresh defecation, which I knew would be hosed into the swimming pool as soon as the maid spotted it.

The Royal We joined me, gave the wet tiles an even more disdainful look than she did the little green and black turd, and chose to grace with her presence the only lounger receiving a direct sunbeam. She sat in the ray of light like a ginger Egyptian idol and paw-washed breakfast eggs and chorizo grease from long white whiskers. She ate anything we did and things even Ziggy didn't touch on a bet, and was the only one of us who never got the drizzling dysentery. She seemed disappointed, however, that Mexican cuisine burned out her hairballs, which she otherwise delighted in depositing on Ziggy's bed in the middle of the night. She knew that nothing compares with waking to the huk-huk-huk of a ralf-ing cat. Ziggy's rhinoceros-like demeanor aggrieved The Royal We's nerves something fierce.

I settled down to mark the net's stock proceedings on my PMX, raising the transceiver antenna to catch whatever The We generated with her washing. One in a million mammals, 90 percent of them felines, possessed a hair structure that made them focused-tesla generators. Perfect, uninterrupted power for mobile executive computers anywhere on the face of the Earth or any other magnetic mass. Fully cognizant of her one-in-a-million status, The Royal We gave me an insufferably superior look as I accessed the global digital highway. Ziggy would need some ammo for this afternoon's lecture at the Universidad de Guadalajara's historic auditorium, the one with the strange painting behind the stage. Speakers at the podium had to vie for audience attention as they stood like midgets beneath the great mural of skeletal workers either frying in hell, or bringing hell with them, as they raged at well-to-do CEO types and fat bourgeois clasping books. The bourgeois, faces emblazoned with loathing and trepidation, were painted in confrontational poses as they looked upon the oncoming tide of flaming proletariat corpses. I promised myself to ask the meaning of the painting, after the lecture. I promised myself, less credibly, not to lose heart.

Developing countries had some inkling of the value of recreational land; Ziggy and I had been trying to make use of that. Neither we nor anybody else could just glom onto a hunk of rain forest, or even semi-trampled volcanic slopes, and rope them off as wildlife preserves. To salvage anything left meant finding clever ways of making nature pay her way, and we'd had some successes. A bird refuge in a parasite-infested swamp more than paid for itself when we allowed one big hotel to drain, pollute, and asphalt a portion of it, hire local citizens as cooks, bartenders, entertainers, maids, and tour guides, and collect big bucks from wealthy bird-watchers and millionaire retiree novo-conservationists who remembered seeing birds in their childhoods and wanted to see just one more before that final good night.

A mountaintop named Monte de Manantlán west of Guadalajara would make a perfect riding trail for elite two-week gringo vaqueros who wanted a relatively cool, relatively bug-free, sub-tropical mountaintop to play on. The fact that the mountain had over 70 percent of its once-rich native flora and fauna, some two thousand species in all, was not relevant to its yearly profit margin. But the view was, and a couple of ritzy lodges here and there would pick enough jet-set pockets to pay for several hundred miles of patrolled razor-wire fences to keep the riffraff and their livestock out. Ziggy would ask for it this afternoon. Unfortunately, something bigger than dude ranches seemed to be in the electronic wind for that mountain. The Net divulged only indecipherable whispers, peculiar and well-guarded.

A little oval movement caught the corner of my eye. A big cockroach or small mouse, and I automatically turned to follow it. Whatever-it-was ev-

idently ensconced itself in one of the potted palms rimming the pool's tile beach, and might have been anything endemic to Central Mexico: hand-sized scorpions, spiders, beetles, lizards, toads, or any of a dozen species of mountain mice. It might have been a polluelo, a lost chick from the innumerable chicken families inhabiting the interior courtyards of private Mexican homes even in the dense bowels of glass-and-concrete cities.

I caught the little retinal shadow twice more during the next hour, each time not quite turning fast enough to perceive what it was. I ventured to The We, engaged in the sunning of the Royal Personage, that she might do a little policing of the pool area, a suggestion received as beneath both notice and contempt.

The maid came out and hosed the turd into a melted heap and thence into the pool.

Ten minutes later Ziggy dashed out and heaved his stocky bulk into the pool like a white whale, splattering me, my laptop, and The Royal We. He then proceeded to stand waist-deep in the center of the pool under the fountain, letting his hair wash into his eyes and laughing at We, who hissed furiously at him from under her lounger.

"I'm going to tell them about Albrecht's rats," he yelled at me as I departed for dryer realms.

We decided to walk to the auditorium, which occupied most of an old Alamo-like church taken over by the Universidad and was only a mile or so from our villa. I carried The Royal We. She was part of the team and knew it, so she consented to use me as a riding mount and was smart enough to stay put on my shoulders. One never saw cats running loose in Mexican cities, and I wasn't sure that if we left The We at the villa, the cook wouldn't be serving fresh-meat tostidos for la cocina in the evening. Pollution made We sneeze cat snot on the back of my head a couple of times, but in general she gave me no more grief than would a woolen scarf wrapped around my neck in the eighty-degree heat.

Smog called El Cappa sat over the city like low clouds, obscuring the bowl of mountains and old volcanoes enclosing Guadalajara. From our plane, the cap of pollution had looked like a solid ochre plug; seen from the streets, the calles and avenidas and sharp lava pavement stones, it seemed a more distant veil. The air occasionally stung the nose and made eyes water, but the perfume of flowering trees along the avenidas and the roses growing everywhere like weeds was thicker than the smell of auto exhaust and the effluent of factory smokestacks, and easier to breathe deeply of. Also easy to sniff in the air was the warm, delicious fragrance of taco stands, sugar and cacahuete tiendas, and omnipresent restaurantes frying eggs with chopped tomatoes and hot peppers and white crumbly cheese. And tortillas on hot greased griddles, smothered in frijoles and salsa, the good rich grain smell of roasted corn. For a mo-

ment the air wavered as though the aroma itself had palpable substance, a thickness distorting the crowded streets like a lens.

The smell of corn got Ziggy to commenting. Ziggy can comment inexhaustibly on any subject. "Gringos don't roast corn much," he observed. "We don't know this good smell—our sweet-corn roasts don't compare at all. Sweet corn's a watery, unripe vegetable. Popcorn, perhaps—" he turned to Inéz, who'd been following at our heels and suffering the stares of her countrymen for us and the cat on my shoulders. "Nezzy, did you know that Mexican tortillas are made from African corn? Bought cheap, because your higher-grade Mexican corn is sold to Africans at twice the price. Africa's one big cornfield and day-care center. Growing damn near as fast as Latin America. Did you know that Mexico City is a third bigger than Calcutta?" Of course Inéz knew all that, and probably better than Zig.

We crossed a magnificent plaza lined with palms and blue fountains so clotted with chlorine and copper sulfate that birds could not drink from them, although kids did. The plaza stones were covered by blankets strewn with jewelry, ceramics, little sculptures, and so on, brought in daily by Nauatl-speaking descendants of Cortés escapees. "Der Todeschwiegen," commented Ziggy in rusted German, indicating the street merchants. He pointed at billboards, advertisement placards, store manikins, pictures in newspapers, all of which portrayed northern-European Caucasians. The people visible in the plaza, like all of Guadalajara, were swarthy, black-haired, stocky indígeno types. "Dead by silence. Nonexistent by popular consensus. One day they're not going to be so dead."

As we approached the lecture-hall church, proprietors of tiendas along the streets were just lifting their shop doors after the one-to-three P.M. siesta, heavy, iron garage doors essential in a country of poverty, thieves, and gangs. Each opened door released the rank odor of sewage, the closed areas accumulating air seepage from below the streets, reminding us of what was down there.

"Doctor Hugo Albrecht, in 1956, put two adult white rats—" Ziggy was shouting to the audience in Spanglish, fully seizing their attention from the fiery proletariat-versus-bourgeois painting raging behind his back, "one male and one female, in the basement of Birge Hall—that's the University of Wisconsin's biology building—and let them breed." He paused for dramatic effect. He had already shown a slide of the human population growth curve, the little dip in the 1300s during the Black Death years, the line skyrocketing after the industrial, medicinal, and green revolutions to the "Year 2000" mark, where it divided in three parts, one shooting up out of sight and labeled "Pope's dream," the other slightly decreasing and leveling off, labeled "Sanity," and the third falling precipitously toward zero, labeled "Inevitable."

When we'd arrived, the church-cum-auditorium was half empty—Ziggy's conservation speeches never drew much of a crowd anywhere. I put The Royal We on the seat next to me. In deference to a foreign colleague, Inéz had sent out word to attend-or-else, and most of the faces were student-age, with a couple of rows of university dignitaries up front. Media people had been packing up their camcorders and preparing to leave after enough footage for a sound bite; when Ziggy started with Albright's rats, the paparazzi had stayed and turned their equipment back on. The Guadalajara press was going to love blasting Ziggy's pro-abortion, anti-Pope rhetoric, I knew. Comparing humans to animals. Suggesting people of color curb their fecundity—him a white, Earth-sucking American, any one child of whose would use more than forty times the world's resources than a Third-World child would use. I could feel our influence with the conservation movement here dropping like the '29 stock market. Universidad directors who had sponsored us wiggled uncomfortably in their seats. Several ladies of child-bearing age watched Ziggy's every move with predatory lust.

"Albright gave them all the Purina Rat Chow and water they could hold," Zig was roaring. Ziggy never lectured at any volume save High. "And guess what? Adam and Eve Rat had babies. And more babies. And the babies grew up and had babies. So many they couldn't even be counted, not by all the graduate students in the biology department. But they didn't go hungry or thirsty, oh no. Nobody starved. Everybody made love. Albright was a good Pope."

The audience let that sink in, discovered it was a funny, and laughed half-heartedly.

"The basement of Birge Hall is a very big place. It held lots of rats. But eventually it began to fill up. There were rats on the conduit. Rats on the fuse boxes. Rats on the pipes. Rats all over the floor. None of them hungry, unless they got hungry for space. For *lebensraum*. And you know what happened then?"

Another pause for dramatic effect. The audience leaned forward. I thought I saw a tiny shadow, mouse-sized, zip across the spotlight dribbling down the front of the stage. I looked around: the auditorium, like the basement of Birge Hall, was also filling, even though the doors had been closed to admittance at the start of the talk.

"Ladies and gentlemen, Albright's rats developed civilization. Yes, a very human-like society, complete with *politicians*." Ziggy was in fine voice; *politicians* bounced off the cathedral ceiling, ricocheted around the auditorium, knocked paint off the mural behind and above his head. Flecks from both the marching zombie proletariats from hell and the sweating bourgeois CEOs fell like snowflakes. The inclined floor quavered beneath my feet. "Three big, mean rats proclaimed themselves king. Each had henchmen who protected the respective thrones, one on

the top of a water heater, one on a distilled-water line, the other in a cranny in the wall. All high spots. The men-at-arms attended their masters when they went off for food or ladies. Every so often new, young rats would join the mercenaries, and every so often one of them would battle the king and kill him and take his place.

"Life in the lower echelons was also changing. Gangs of young rats would terrorize older ones, chasing them from their little plot of ground, often killing them. Not for food, mind you. *No one was hungry*. Rules for making love changed. Female rats no longer went into estrus. But they were hunted down by packs of males and forced to copulate nonetheless. Can we use the word rape here? Or is that too human a term?"

Men of the audience cringed. Ladies licked their teeth: Ziggy the biologist-hunk. "*¡Aguas!*" Inéz shuddered, mortified, slouching farther down in her seat, but I always suspected her of certain Zygidaynus fantasies, too. I started to notice children in the auditorium. They elevated themselves by kneeling in their seats to better see a slide of rats like a lumpy hot carpet on the floor, walls, and fixtures of a dim basement that receded into darkness.

"Mother rats who had litters started to ignore their babies. The little kiddies went malnourished, they weren't washed properly, they developed sores and grew sickly. Many were killed by the gangs. Many were killed by *their own mothers*. The moral rules of rat society had broken down, and there was chaos throughout the land, or in this case throughout the basement." Ziggy searched the stunned audience. Two babies started to cry. A mother three seats down from The Royal We began to nibble on her infant, which was too terrified to make a sound. I turned away as she bit its fingers off, not before noticing that children on either side of her were similarly mutilated and scarred.

Sounds of heavy machinery came through the doors of the auditorium. The floor shivered in waves.

"Ladies and gentlemen," Ziggy boomed, "does any of this seem familiar? Do you think that we don't need clean air and wide open spaces and the beauty of nature? Do you think we can be good animals if only we are fed enough? But people are already starving. Our cities are teeming rat holes chewing away at our morality, our personal liberties, our ability to be responsible animals. What kind of world are we making for our children? For them, for the future of mankind, we must preserve the world that *evolved us*, or we will disappear *along with that world!*"

I never liked Ziggy's "children" argument. It seemed to me that on the one hand he preached birth control, and on the other that preserving nature was something we adults did only for our children, which Ziggy suggested we don't have. My mind strayed to my internal argument, and I started to see retinal lice again in the dim lecture hall. I thought it might have been The Royal We, who had heard all this before and had long

since grown jaded by the rat slides. Was she slinking around, about to disappear out the nearest window and end up a taco entree?

She was still politely seated beside me, steadfastly refusing to look toward Ziggy's ranting—since the morning's dousing The We no longer acknowledged Ziggy's presence on the face of the Earth. She quietly basked in the curious stares of nearby attendees. House pets in general were a rare thing here, and most of those were caged songbirds. I squinted around, wondering if someone hadn't brought their pet cardinal or oriole and let it loose; several of the just-glimpsed motes appeared to silently fly past at head-height. Something rat-sized darted behind the corner of the stage. Several other shadows on the floor seemed to harbor darker shadows moving within. If those are cockroaches, I thought, I'm taking a machete to bed with me tonight. I put my arm protectively around The Royal We—the auditorium was now standing room only, and people lining the near wall angrily coveted her seat. Little creatures continued to appear subliminally to my peripheral vision.

By the time Ziggy was wrapping up with a pitch for a biosphere reserve on that local, still-undeveloped mountaintop, most, if not all of the ladies in the audience, and a good number of men and older children, held infants. The room was filled to overflowing. It had grown brighter in the last few moments from new plate-glass windows boring their way through the century-old adobe walls. The back of the auditorium and the east entryway had been knocked down, and the historic building was half-remodeled. Through the rifts I saw various plastic signs, advertising fast-food places and clothing outlets, waiting in tombstone-like rows out in the old monastery garden, which was being paved. The church was becoming a mini-mall.

After the lecture I tried to get an explanation of the painting (it had just been smitten by a wrecking ball). Someone said it was José Clemente Orozoco's *Four Aspects*; but everyone was going up to Ziggy and either regaling him with praise for his courage in broaching the subject of overpopulation, or trying to spit in his face because of his blasphemy. "We are not rats," they protested. One young reporter wanted to know how Albricht cleaned up the rat poop.—It was quite an ordeal, as I understood. The dean finally had Albricht's rats gassed and hired a professional firm with moon-suits to shovel out the basement. On humid days when the pipes sweat you can still smell rat shit down there.

The trip back to our villa made us all wish we'd taken a taxi. Just outside the Alamo-cum-MexMall a starving child sat watching his naked mother sell blowjobs to three workers in the night shadows of a construction crane. The child was filthy; Inéz walked by him without looking down, but Ziggy cast an angry eye his way and murmured—the first murmur of his life—that he should throw the little snotball in the plaza fountains. The copper-

sulfate blue waters no longer existed, however, the plaza stone having been tarmacked and colonized by businesses while we were in the lecture hall. The smell of roast corn had become the reek of sweat-shop effluent and seeping dumpsters. The plaza's palm trees were now anti-vandal lights, and the Indian traders who this afternoon sat on blankets and sold semi-precious stones and fired pottery were replaced by pizza and Chinese take-out hole-in-the-walls, bars, strip joints, drug sellers and users, whores. Foul language dribbled ceaselessly from the mouths of apparently homeless urchins. Fights broke out six times in five blocks; the sound of gunfire and shrieking tires filled the noisy distance. A gang of scary ne'er-do-wells gave us a look-over and a follow. An even scarier look from Ziggy made them change their plans. Steam blows from grates in the gutters floated like wraiths of disease and mixed with the exhaust of noisy bumper-to-bumper traffic.

At one point Ziggy halted so abruptly I crashed into his back, nearly dislodging The Royal We. He faced the low yellow billows of smog above that obscured the higher buildings, and filled his chest with the thick air. "Julian Simon says the Earth can support unlimited population growth for seven! billion! years," he roared at the top of his lungs. Inéz and I each grabbed one of his arms and yanked him down the streets.

We almost missed the villa; it had become buried in a cavern between a Hyatt and a Banco de México high-rise.

I stayed up well past midnight, depressed by the latest GNP, by outrageous media misreportings of Ziggy's speech—all of which cast him as a tree-hugging Hitler and advised self-castration if he wanted population control—and by the consequent gutting of environmental programs, what there'd been, in Mexico.

I had a glass of kahlua and milk with Inéz in the kitchen just before she headed for her room, then fed The Royal We leftover chicken tostadas. I splashed enough salsa verde on them to ream a horse, just to see if she'd eat them. She did, without hesitation and with great literal relish. I then checked on Ziggy. The gloomy return from the lecture had gotten to him. He was passed out on the floor of the bathroom in a barf puddle, mainly the contents of a liter of El Presidente.

"S regressive evolution," he babbled. "People w' sensitivity—first to drop out 'a gene pool. It's 'ose sel'-promoters inna air-conditioned bedroom communities who're goin' t' survive us. All 'ey need izza steak dinner 'n cable. Rat chow, water, 'n a new car. Education's t' *National Enquirer*. Truth's an NRA flyer. . . ."

I lifted his head up by his hair and shoved a towel under his face so at least part of him would have a dry, if not comfortable, night; then I took a leak, found another brandy bottle, and retired to my room where I spent two hours on the Net not finding out what was secretly on tap for Monte de Manantlán, the last living mountaintop in Central Mexico.

I was just starting to think about all the strange motes I'd been noticing lately out of the corner of my eye when I saw a big one. A little flurry in the air, more like a flicker of reflected car headlights, snapped my attention from the LCD and into the yellow lamplight on the desktop. I was so amazed, I found myself staring at nothing for a full minute, seeing an afterimage clear as a bell. An animal had stood there, its staring face I mistook at first for my own in a mirror reflection, only there wasn't any mirror on the desk; tiny thick-fingered hands, not paws, rested on an ashtray; a long, horny tail armored with tiny whiskered scales curled around the telephone. It was no animal I recognized, and in my business I recognize them all. I tried not to make startling movements as I looked under the table and around the room for it—wild animals can move faster than the blink of an eye—found only The We curled up on my pillow and sound asleep. I gave my bottle of El Presidente a suspicious glance, but Ziggy had inspired my thirst only as far as two shots, hardly enough for the DTs.

"Would Her Royal Magnificence," I suggested to The We, "kindly rouse her precious personage and keep the vermin out of the bedchambers for at least one night?"

She replied with a salsa-verde cat fart that sent me out of the room. I fled to the pool area, skirting little dark heaps on the wet tile. Overhead a few bright stars pierced the light-polluted sky, but my eye kept being drawn to thick billows of streetlit fog that rose and swirled like the mists of time beyond the broken glass of the security wall.

We drove west. Guadalajara's morning light knifed through smog like congealed pudding. "Step on it, Nezzy," Ziggy ordered, pounding his laptop. He showed no after-effects from his night of driving the porcelain bus, whereas I nursed not only a headache and queasy stomach—harsh retribution for only two shots of brandy, I thought, until I remembered the water glass of kahlua and milk—but also a stiff neck from falling asleep on a pool lounger. Inéz twisted and jerked the Volkswagen around thickening traffic and down the maze of Old-City streets. In places the sidewalks were still cobbled and cracked; in others, whole sections of corrugated tin sheet-metal slums, like a shuffling deck of cards, were being bulldozed and replaced with newer slums made from plasterboard ticky-tacky: putting the shine on squalor. In the residential aprons of town, swarthy black-haired people poured from doorless doorways, pushing carts, sweeping little weedy lawns, setting up one-family stands to sell damn near anything: bottled water filled at the nearest polluted tap, fried cabbage and dogmeat tostadas, mounds of tomatillos, fresh-squeezed fruit juices from backyard trees bearing more weight in fruit-fly maggots than fruit. The ubiquitous roast-corn aroma mixed with the odors of gasoline and industrial effluent pumping El Cappa from endless rows of smokestacks. It did nothing for my sense of ill-being.

The worst leg was the midden at the city limits. We rolled up our windows for sheer self-preservation of lung tissue. Great swells of garbage, trash, street waste, rags, tires, food too rotted even for tourist stands, the slick gleanings of chamber pots, newspapers, tons of dumpster debris, viscid dregs of backyard hen houses, dog houses, goat houses, pumped-out outhouses, all the leavings of two million six hundred thousand human animals and their civilization, whatever the level, poured into the doughnut of offal ringing Guadalajara like a putrefying necklace.

"Step on it, Nezzy. ¡Rapido!"

Inéz needed no prodding to speed through the outskirts, past the hundreds of garbage-pickers pawing through unspeakable billowing filth as far as the eye could see. As we crossed the bridge over the chasm and the river into which the city sewers dumped their untreated flows, I looked down in masochistic horror. Even there, people poked through the brown foam, searching for subsistence, those lacking even enough social standing to join the garbage-pickers above, the lowest of human echelons, the putrefaction of the human soul.

And then we were out of it, beyond the city, rising from the Atemajac Valley and up the slopes, going over first one old volcanic mountain and then the next and yet one more. Finally the houses and shacks and fruit stands and new foundations attenuated into mescal-agave fields, the power poles thinned, the sky deepened its blue, and we were at Monte de Manantlán and its forest of two thousand species of non-human life.

The base of the little precious mountain was chewed by ages-old slash-and-burn agriculture, two- and three-acre bites in various stages of slash, burn, crop, or regrowth, looking like a black-to-green patchwork quilt through the distance. Nonetheless, thatched indígeno huts shortly gave way to game trails over which natives roamed to harvest nuts and fruit from wild trees. The canopy was fully closed even halfway up to the weathered, flattened summit. Pines, oaks and magnolias dominated the highest elevations, sub-tropical species, never subjected to freezing, the coldest El Niño weather dropping the nights only to a rare fifty degrees. Every sunfleck hitting the forest floor blossomed with flowers, mostly red tubes visited by hummingbirds. Baskets of orchids and bromeliads and veils of Spanish moss coated old, twisting branches.

Car windows down again, Ziggy, Inéz, We, and I took deep, cleansing breaths of pine-scented, warm fresh air, the sweet oxygen-laden breath of Nature. My eyes stung, for the first time without encouragement from any of a thousand aerosol pollutants. *What thoughtless ambition, I reflected, could destroy this? What gain could outmeasure this?*

So thick; it seemed so thick and lush that for a long moment I thought I was seeing two forests, superimposed one on another. Two slides stuck in the projector, of entirely *different* forests: a bright one I knew, a dark one I didn't. In the trees bounced both a rainbow-winged mot-mot and

shadows of unfocused phantasms. Suddenly giddy, I closed my eyes and tried to quell a buzzing in my ears, until I realized what the sound was.

The beee-beee-beee clamored from Ziggy's PMX in the front seat. He was already on it, punching for data on the warning. "Something's wiring in on the summit apex," he yelled.

"¡Aguas!" Inéz stomped the accelerator. The tires spun on the overgrown, two-rut lane we'd been following. We were very near the apex ourselves, for that had been our destination, a perfect spot to feed designer candy to a custom app and access data bases for the dude-ranch marketing campaign. Not that we wouldn't have to grind our teeth promising people hot-and-cold running spas, tennis courts and casinos, but to make a mountain into its own financial instrument you had to cough up real-estate futures with impact, and not spare the binary units.

In ten minutes we'd reached the apex. Things already looked suspicious. The two-rut wagon trail had graveled itself along the way and ended in a paved parking area next to a giant monkey-ear tree. The monkey-ear sat exactly at the geographical center of the mountaintop as though planted by a plat map.

We got out and surveyed the area. Still dense, still green. "El Eden de Dios," Inéz breathed, and I echoed her sentiment: "Heaven."

"And there's the fly in the ointment," Ziggy added, mixing metaphors with an eggbeater. He pointed to the monkey-ear's gigantic bole. The tree had to be over four hundred years old, the trunk wide enough to buzz a biplane through, the main boughs themselves each bigger than any cold-climate oak of comparable age. The diameter of the crown covered at least half a football field, twiglet to twiglet. Flowers dangled in fat grape-like clusters from the fern-leaved umbrella of a ceiling, two hundred feet above. One scant yard off the ground, however, where Ziggy's finger held its aim like the muzzle of a Glock 9 mm, was a little whirling flutter of wood chips.

A wood-white line widened from a point and proceeded to chew an encircling saw-cut around the trunk of the tree, gaining speed and looking like nothing so much as the spark at the end of a lit dynamite fuse. Leaves and flowers and wrinkled green monkey-ear seed pods began to rain down. Above, little branches and then bigger branches and then main boughs abruptly severed into sections, the sausage links hovering over our heads as they reformed into construction beams and slabs of ornate veneers.

"Stop!" Ziggy yelled. "This is a hostile takeover!"

For a moment of eerie silence, nothing happened. Then a beer-bellied man in a hardhat popped up in front of the sawed-through trunk of the monkey-ear tree and waded toward us through a drift of sawdust. He held an IBM ThinkPad-AI in one hand, his data/fax modem plugged into a battery transceiver jammed alongside a hammer and screwdriver in his leather toolbelt. The acrid odor of corporate bloat rose on the wind.

I fetched The Royal We from the car seat and ran over to Ziggy with

the cat in my arms, her claws dug in from the abrupt flight. Inéz retrieved the laptop from the dashboard and held it up in front of Ziggy. I stroked The We hard enough to shear hair from hide as Ziggy expanded the keyboard. Inéz's arms had all the stability of a bung-legged TV tray.

"What's that?" the hardhat asked suspiciously, indicating The Royal We. Ziggy smiled craftily. "Computer-Assistant Transponderite."

"A CAT, eh? Well, it ain't gonna out-spark this little beauty here." He held up the toolbelt battery. "Data Obeisance Galvanoset." It had an atomic symbol sticker on it. "Go ahead," the guy snorted. "Gimme your worst."

Right then and there a foreboding chill went through me. Nobody was ever that confident in a face-off with the Zig man.

Armor-plated against intimidation, Ziggy started banging on the laptop, each landing fingertip-callus jarring though the keys, motherboard, Inéz's forearm bones. The LCD screen glowed green-hot. "Intermega Global Pharmaceuticals return-on-the-net-asset analysis projects restructuring monopoly rights into a one hundred-million-dollar market for Monte de Manantlán medicinal plants identified and any/all predicted *de novo* Taq DNA polymerase enzymes on research futures!"

Atta boy! Ziggy's first volley, our biggest gun: new magic medical bullets from tropical weeds.

The hardhat staggered, but recovered all too quickly. He pounded his own computer-ette. The return volley zapped nearly instantaneously into our machine, and everyone else's on Earth, from the comsats. "Acknowledging financial muscle from the information industry—" he flipped through some: telecoms; banking; biotechnology, our bid; aerospace. Then he countered with entrenched, deep-pocketed rivals. "Steel, petroleum, automotive—" The basic infrastructures willy-nilly began clearing regulatory hurdles; permits for fiber-opt lines and permissions from INboards fluttered all around the parking lot in swarms.

"Shit," Ziggy snarled, scrambling to refocus. "What's this guy got?" With the integrity argument fizzled, he hit the venture capital funding and flogged entertainment stocks, offering building portfolios with virtual 3-Ds of the mountain. Dude Mex took form. Stockholders grabbed in for ultra-long-range mergers and acquisitions. The resulting synergy and operational efficiency offered a launch of hot offerings, including a trivestiture gain from horses, bird watching, and roller-blading trails.

The opponent countered with Embalmed Palms International, a Korean conglomerate. We'd tussled with those guys before. They always waded in to offset our nature gig—soaked plant leaves in something to preserve them and stuck them in plastic-and-cast-steel stems and trunks. No watering, no reinforcing of hotel or mall floors to support a big pot of soil; the only maintenance an annual dusting. EPI had made whole lobbies into jungles; they could make mini-forests of dead-but-lifelike.

Ziggy snorted at the audacity. "Wait a minute. How can you compare

the volatility of a growth investment like Dude Mex with that of a Pacific Rim company on the Nasdaq? Them's apples and oranges!"

Hardhat grinned. We suddenly noticed his venture capital skyrocketing. Dead-but-lifelike was a screen to arbitrage for interest-rate derivatives versus Australian pork-belly futures. He'd acquired properties in a deregulated market. Meanwhile Ziggy's debt was compounding faster than future assets.

"Oh, *feuuwww*," Inéz groaned, making a face. Administrative bloat popped all over us like sulfide-gas balloons.

"Cash flow negative!" I yelled. "Cash out, Ziggy!"

Capital gains taxes and redemption fees buzzed angrily around our heads. Ziggy winced, taking the brunt of the stings, but gamely kept chiseling at the enemy's clammed executive package. "What is this? A *megaplex*?"

The guy was comp-opting an eight-million-dollar entertainment center, fifty thousand square feet of indoor video arcade, next to a restaurant, merchandise mall, and virtual reality theater. Bongs and wails of video games drowned out the last of birdsong.

That in turn was drowned by a fleet of Virtual Harvesters eating their way up the slopes. Selected trees were felled, their limbs removed, and cut into logs of pre-programmed length—each in less than thirty seconds.

I found myself offering spiritual energy to Ziggy, seeing him not for the first time as a lonely battler against unfair and evil odds, a crusader whose cause is nothing but confetti. Why was nature and the world that spawned her human race so content to be broken into sad little bits here and there around the globe? Not asking for help, not fighting back, willingly letting herself get mutilated, entombed by concrete and asphalt, all her flowers and hummingbirds rendered into brown foam flushed down a stagnant river. Ziggy the anachronism, charging ultimate windmills. A warm drop trickled from my eye and fell on The Royal We, snapping a bright spark in the dimming sunshine.

Ziggy countered bravely. Dude Mex assumed a 15-million-dollar debt and ante-upped with the pharmaceuticals. "We trade at 23^{3/8}, up from 11, with an earning ratio of almost 50!" He leered at the mega-fun-plex guy. "Virtual entertainment is bullshit. All you do is tie 'em in a black box, show a movie and shake 'em up till they puke. People want the real thing—trees and cliffs and mountain climbing." At once the public bought up a third of our 14.9 million shares outstanding.

"Nature trails, my ass," the guy laughed. "They want fucking *roller coasters*." With a sickening grin of victory he tapped swiftly, decisively on his silly little ThinkPad. The atomic battery started to whine. Suddenly junk bonds, investor groups, and volatility swings poured from his modem port and buried him to the knees in venture capital, stunning us all. He had a market capitalization of 5.1 billion, 6 times forward sales and

28 times forward earnings. With 70 percent interest, his outfit was worth over a billion on electronic paper alone, and that was just the beginning. He held up the bottom line: 2 percent of the global Gross Domestic Product!

His burger, Coke, and vid-joint-on-steroids, whatever it was, nailed Ziggy to an electronic cross.

"You can't do this," Ziggy yelled inanely, flicking melted bits of laptop keys from his fingers. "Seventy-five percent of humanity lives in developing countries. In order just to provide them a basic subsistence diet we need to increase food supply by more than 400 percent. Without a major technological breakthrough, the rats won't even have food! And any such impossible miracle will be at the cost of total deforestation, topsoil depletion, and pollution of all the freshwater on the planet!"

Inéz and I both gasped. Quickly, she said, "Doctor Zygidaynus, *they don't want to hear that*—" but her warning came too late. A whistle of crashing stocks shrieked over our heads, impacted the slopes, the craters immediately used for foundation excavations. Ziggy's laptop vibrated, convulsed out of Inéz's benumbed hands, turned cherry-red, white, ignited in sparklers.

Failure. The monkey-ear tree already was but one monstrous, ornately carved, and gaudily painted door in a solidifying wall that appeared to shove out like a fortress around the entire summit area. Leaves, sand grains, half-page memos, mot-mot tail feathers, wads of cotton-candy, paper pesos and dollars, and sharp needles cracked from the Dow Jones industrials, CRB Futures Index and the S&P 500 filled the air. Swirling detritus gained volume and velocity, the tornado nearly ripping The Royal We from my arms. Trees crashed down, façades sprang up; the mountain beneath our feet started to rock. Huge diplodocus cranes reared cherry pickers and elevator frameworks in the dust-haze; hardhats wearing lumberjack shirts and jeans or Armani suits and silk ties swarmed through the warping landscape.

"Back in the car," Ziggy ordered, pushing us toward the Volkswagen. We dived in just in time; a wrecker was backing up to the front bumper. Inéz wheeled the little car around and put the pedal to the metal. We flew down-slope as branches, leaves, bales of Spanish moss, and other forest detritus shot around and past us. High-tension power lines reared up alongside the road, which was now a concrete snake, splitting into multiple lanes, keeping Inéz far too occupied to use her customary let-the-car-steer-itself techniques. Ziggy, I, and We looked back. The mountaintop vanished behind a wall cloud like the epicenter of a nuclear blast. Construction flowed down the mountain behind us, a lava amalgam of tarmac, huge buildings in strange shapes and oddball colors, vast tangles of miniature train tracks, and gigantic erector-set structures that sprouted bright, car-sized Christmas-tree ornaments filling with screaming kids.

"They're amusement rides of some sort," I said, dumbfounded.

"Hell," Ziggy moaned, "it's a goddamn *theme park!*"

At that moment we sped past the perimeter of what had been a natural area and the base of a mountain, hitting the flats between two towering pillars that spewed out a fifty-foot steel gate and seventeen ticket booths just behind us. A curved thirty-foot-tall sign arced above the gate in a dayglo-orange and purple rainbow. Ersatz Aztec symbols etched themselves over the sign and the gates. Twenty-foot-tall yellow neon letters sizzled into being, proclaiming Monte de Manantlán, now shaved and overlaid with pyramid-theme restaurants, grandstands, racetracks, hotels, water playgrounds, acres and acres of rides and other amusements, to be MEX-DISNEY AZTECLAND.

The highway finally settled down into a six-lane transcontinental viaduct. Our three lanes leading back to downtown Guadalajara were fairly empty, but the other side, a beeline to the new theme park, was already bumper-to-bumper with campers and trailers. Both sides of the highway was a stripmall from park to city limits. At dusk we reached the river chasm bridge, which now bisected the sea of gangrenous waste that had filled, then jumped, the gorge and flowed four miles beyond.

Directly ahead of us in the eastern sky we saw a brilliant star slowly rise above El Cappa. We watched it grow in morbid fascination, finally recognizing that the sunset illuminated a miles-long orbiting Mylar Elvis.

We drove through the city until night had fallen, not able to find our villa at all. We could barely locate Avenida de la Paz, although the only tranquillity on the Avenue of Peace came from the curtains and walls of dark atmosphere, blacker than the night, a strange thickness that couldn't be called either smog or haze. Tall buildings vanished less than thirty feet up in the stuff, and that ceiling seemed to be steadily lowering. The dark flocculence even narrowed the streets.

"Where should we go, Doctor Zygidaynus?" Inéz asked. "What do you want to do?"

Ziggy had been awfully quiet; even The Royal We seemed distressed by his unnatural bearing and had, to my amazement, jumped to the front seat and crawled into his lap. He ignored her, but she tapped into him and her eyes grew forlorn and confused. She, too, was a dear anachronism, as dead as the science he championed, natural history. "I want my world back," he whispered. But he would never get it.

We drove until the veil encompassed the road and us altogether. In the shadows I could see the motes and vague forms and new beasties and superimposed forests and cities, this world of another dimension, regressive evolution, perhaps; and I wondered if we would be perceived, for a fading moment, as ghostly motes in the jelly of *their* eyes—the future who walks beside us, those who will be our survivors, all translucent yet, but gathering like mourners at the grave site. ●

VISITOR

We had bones when we came out of our sea;
None, now that we swim the darkest ocean.
We remade ourselves to voyage and ask
Questions of grains of dust, radio waves, light.
Landed on the dark side of a blue world,
I ooze toward the lighted symbols,
POOL, TV, GOOD FOOD, and NO VACANCY,
Wondering if the natives will be friendly.

—Catherine Mintz





Brian C. Coad



TAKING CARE OF DADDY



Brian C. Coad hails originally from the English county of Cornwall, but now resides in San Francisco, California. The author, a metallurgist, has sold over a half-dozen stories to *Analog* and has spent most of his career working on aerospace and electronic materials, especially precious metals. "Taking Care of Daddy," his first sale to Asimov's, "began as a satirical extrapolation of the modern American health-care and employment systems. Most of my efforts tend, despite my attempts to make them light and bubbly, to have an undertow of serious social concerns, à la H.G. Wells—my master this half century past."

Ever since Melissa's mummy'd died, she'd been taking care of her daddy. It was never easy. The first morning of his new temp job with Gimbel City Data it was harder than ever. She couldn't get him out of their hutch. Her fault, really. She'd put on her prettiest dress so he'd go to work happy. He fuss, fuss, fussed. "You're pretty as a vid-star." "No wandering around Gimbel City, huh, precious?" "Wish I could stay home, take care of you." On and on.

She got him into his jacket. He stood there like a dummy. "We're doing okay, huh, precious? We've seen lots worse."

They'd surely seen worse. Sometimes between jobs they'd slept on the streets with the didgies till the first paycheck. Not this time.

"Daddy, everything's perfect. Please, you'll be late."

She got him to the hutch door. "You know where our Medisurance card is, in case anything happens to me?"

"Behind Mummy's photograph. Daddy, it's almost eight o'clock!"

Finally, he was gone. He's a good daddy, she thought, I couldn't do without him. But I wish he wouldn't hang about so.

I even more wish he wouldn't keep reminding me of Mummy.

Three years before, Melissa's Mummy was suddenly ill. Her daddy had taken Mummy to a hospital. Some surgeon operated on her. She died. Her daddy blamed himself for skimping on Medisurance. He'd go on for hours about how hospitals killed off the uninsured, quick, before they ran up any big bills. Her mummy'd have been okay if they'd been rich, or if they'd been didgies with no money, but uninsured temp was bottom of the barrel. Sometimes he'd cry.

Lucky he hadn't started up again this morning.

Melissa flopped into a chair between her and her daddy's beds.

That was enough about Mummy for now.

She picked up the hutch entertainment center control, called up the menu. Nothing worth watching. Her fault again. She'd only let her daddy pay for minimum service.

What to think about that was pleasant?

School tomorrow! The John Glenn private school.

Melissa loved private school. She hated public school, where all you learned was press this, press that on a keyboard, stuff for temps. Private schools taught stuff perms had to know. She was definitely going to be a rich perm when she grew up.

Her daddy'd be one, if only he'd forgive himself about Mummy—

Mummy again! Damn! No escaping her! There was her photograph by her daddy's bed. She'd trained herself not to see it, but she looked at it now.

By the photograph was a small pile of coins. Dear, sneaky Daddy. If he'd put candy money in her hand, she'd have said no, they couldn't afford it.

This moment, candy was a pretty good idea. She leaned across the bed and picked up the coins. Her mummy's grey eyes watched from the photograph. "Daddy didn't kill you," Melissa said. "It was that surgeon. I hate stupid surgeons!" She turned the photograph face down. Their blue Medisurance card showed, so that was all right.

But the day was getting off to a terrible start.

I must think of something pleasant, she thought. I must, I must.

She thought of Henrietta.

Henrietta was a kitten her daddy had got for her after Mummy . . . to take her mind off it.

Dear little furry Henrietta. The kitten had taught her cat talk. They'd been chatter, chatter, chatter all day long.

Thinking of Henrietta wasn't much better than thinking of Mummy. Next place they'd gone, no cats allowed. She'd had to give Henrietta away.

She'd kept up with cat talk, though, practicing on alley cats. Maybe there was a cat in the hutchery she could talk to, or some other animal. After Henrietta, she'd learned other languages, squirrel talk, cow talk, monkey talk. She could talk to most anyone.

She went out of the hutch and patrolled the hutchery corridors. No animals, but the people she saw were well dressed, and seemed classy. Some looked more like perms than temps. A few nodded to her, probably thought she was a rich perm's daughter, in her pretty dress.

By corridors and stairs she went down to the basement automat and bought some gooey candy. It probably wouldn't be good after the first piece, but it was nice to have money to spend.

An elevator took her back up. As she was keying her hutch door open, she heard a noise behind her. A short red-faced man came out of a hutch a few yards away.

The man came toward her, staring at her with crooked eyes. She stared back for a moment, then went on with her keying.

Somehow she'd punched in a wrong number—something she hardly ever did, she was very good with numbers—and had to start over.

Close, too close, the man said, "My dear little girl, you must be a new arrival. Welcome." His voice was scratchy, raspy.

Melissa made a semi-polite noise.

"Permit me to introduce myself. I am Dr. Blackheart, an eminent surgeon at the Gimbel Majestic Hospital."

A surgeon! The day was going bad again. Melissa saw his twisty eyes run up and down her body, like he was figuring how well she'd cut up. Her daddy'd said you must get along with people, even if you don't like them, so she forced out, "Pleased to meet you," or something like it. Then she went back to work on the door keypad.

The surgeon touched her shoulder. "Care to visit with me in my place for a while? We could look at some picture books together."

Melissa shook his hand away. She said she was too big for picture books. Anyway her daddy wouldn't let her to go to anyone's place to look at any kind of books.

"The invitation stays open," he said. "Goodbye for the moment."

By then, she had all the numbers keyed in, but she didn't open the hutch door until he was out of sight along the corridor.

Inside, hating surgeons more than ever, she squatted on her bed, chewed fiercely on her candy.

It was only a small hutch. She began to feel shut in, confined.

Only one thing to do.

She changed into worn old jeans and went exploring Gimbel City.

Melissa loved to see a new city, especially the didgie part. If anything did happen to her daddy, that was where she'd have to live.

Outside, there were a lot of hutcheries just like hers, then the glass-and-chrome office towers at the city center, then more hutcheries, then rolling hills. It wasn't a big city.

She went to the city center, checked it out block by block. Soon she knew all the shops, which company was in which tower, and so forth. Prosperous folk came and went on the sidewalks. Didgie beggars watched them, grinning when somebody tossed a coin. Melissa felt guilty for spending all her candy money.

At a street corner there was a broad old man on crutches. He had a kindly face a bit like Abraham Lincoln's, and was missing a leg. He'd be just the one to introduce her to the Gimbel City didgies.

She went by him three times to make sure. As she approached him the fourth time, he spoke to her.

"Can I be of any help, Bonnie Girl? You looking for something?"

"I want to find out where the poor people live in Gimbel City."

"Well, I can tell you that, for sure. The name's Yo Yo Johnson."

He held out his hand. Melissa shook it. She was about to say I'm Melissa, but he stopped her. "Don't tell me a name. I'll likely not remember. From here on, you're Bonnie Girl. That, I won't forget. We poor people mostly have our habitations on Scuffle Street. You shouldn't go there alone. We're harmless, but some of us are a bit peculiar, and might frighten you."

"Di—uh—indigents don't frighten me. I may be one some day."

"We hope not, Bonnie Girl. Should that occur, we would surely make you welcome. May I escort you to Scuffle Street?"

Melissa waved at his tin cup. "Won't you be losing money?"

"You're most thoughtful. Whatever I lose, it will be trifling. Come. Let us be on our way."

Yo Yo, swinging like a pendulum on his crutches, led Melissa away from the city center. After a maze of alleys, they came to a grimy street with a wide center strip of brown grass and drooping bushes. Clusters of cardboard boxes nestled among the bushes. "This," said Yo Yo, "is Scuffle Street. In these fine residences dwell many of Gimbel City's most distinguished citizens."

Raggedy people sat by some of the boxes, taking in sunshine, or cooking over twig fires. Feet in tattered socks stuck out of others. A number of closed boxes had DON'T DISTURB signs on them. There were cooking smells and smoky fire smells and people smells.

Yo Yo escorted Melissa to a box assembly that was almost an apartment, compared to the singletons. He tapped with a crutch. A flap went up. A large-bosomed, friendly faced woman wriggled out. "This is my wife, Sarah," said Yo Yo. "Sarah, meet Bonnie Girl."

Melissa shook hands, warming to Sarah.

"As you can see," said Yo Yo, "we live in considerable luxury."

"You have a charming home," said Melissa, talking like a perm. "It is most ingenious of you to have put it together."

"Don't spoil him," Sarah said, but she looked pleased. (So did Yo Yo.) "Would you care to have lunch with us?"

"I'd love to."

"We've nothing but worm soup, I'm afraid."

"I really shouldn't trouble you." Melissa had tasted worm soup before, when they were really short of money. She wasn't fond of it.

"No trouble. Sarah won't even need a fire. The cans self-heat."

So she stayed to lunch. The soup wasn't too bad, after all, and Yo Yo's conversation about weather, politics, people, and Gimbel City was interesting. She left in time to be home before her daddy would be back from work. In their hutch, she rested, and read a book, and thought how lucky she'd been to meet Yo Yo and Sarah.

She changed back into her frilly dress. The moment her daddy came in, he said she was still as pretty as a vid-star.

Their second day in Gimbel City, after getting Daddy off to work, Melissa had to decide what to wear to school. Important decision. She didn't want to give a wrong impression on her first day.

She settled on a blue businesslike outfit. The skirt was a bit short. She put on pretty blue panties underneath, so that was all right. There was no mirror in the hutch, but she was sure she'd pass for a perm's daughter.

On the way to school, a shop-window mirror told her she would.

In the school, a secretary person took her to her classroom, introduced her to a severe lady in a tailored suit, Ms. Simpson. Ms. Simpson told her where to sit. She sat, and looked around. It was a pretty small class, not more than fifty students.

All morning Ms. Simpson taught cash flow, balance of payments, and other stuff perms needed to know. Melissa followed it easily. She had a quick mind, and had done a lot of reading. Other kids in the class took no notice of her. That was fine. She was okay by her own self, not needing much of anyone except her daddy.

Lunch time came. She found the cafeteria without asking the way. At an unoccupied table, she opened a can of soup, pea, not worm.

A skinny boy came to her table. "I'm Peter Garrity Three," he said in a squeaky voice. "Can I share your table?"

Melissa hesitated. Peter Garrity Three had thick glasses and a pointy nose. She didn't much like the look of him.

"If you'll let me sit with you, I'll share an orange with you."

Assuming he'd bought permission, the boy sat down.

Melissa thought how much she liked oranges, and didn't protest.

The boy's bag clearly held a lot more than one orange. With all that

food, she wondered, why's he so thin? He brought out sandwiches and two oranges, gave Melissa one, then offered her a sandwich.

She hesitated again, but took it.

"I am rich," said Peter Garrity Three. "I imagine you are, too?"

"Perhaps." The sandwich was ham, with a delicious smoky taste.

"That is to say," Peter went on, "I will be rich. My grandfather, Peter One, made a lot of money. My father, Peter Two, is making a great deal more. When I grow up, I shall do the same."

"That is precisely my intention." The way he said "father," Melissa felt sorry for him. Clearly, he didn't have a daddy.

"I bet your family's not as rich as mine. I bet your father hasn't set up a spare parts menagerie for you, as mine has for me."

"I'll have one for my children when I grow up." Melissa'd read about spare parts menageries. Rich people had them to provide body part replacements for any of theirs that might fail. She wasn't sure what kind of animals were used, but she was interested. Anything to do with animals interested her.

Peter said: "Would you like to see mine?"

"Perhaps."

"After school, then. I will take you home and show you."

Outside the school, waiting for the Garrity kid, Melissa asked little cat talk questions of Henrietta in her head, like, what sort of animals was she going to meet? Would they talk to her? Henrietta wasn't really there, so she didn't say anything back.

Peter came. He hoped she was fit. They had to climb the highest hill outside Gimbel City to the best site for a home in the area.

Melissa said she was fit.

At a showing-off pace, Peter led her along the city streets. Soon they were clear of the city and climbing. Melissa asked why he didn't have a car with a big gorilla of a chauffeur to drive him to school.

"My father believes I need exercise."

Beyond that, they hardly exchanged a word. Fine. Melissa hadn't breath to spare for conversation.

Higher up, the landscape grew wilder, their road snakier. They entered a wood with pheasants, peacocks, squirrels. Would Peter slow down if she spoke to a squirrel? Better not, she decided.

The wood ended at an open hilltop plateau, landscaped and lawned. Their path twisted between flowering shrubs and little lakes to an enormous mansion. Peter quit the path and marched her straight across the lawns. He keyed open the mansion's front door and waved her to go in. She didn't much want to be shut up inside with the boy. He said, "This is the quickest way to my menagerie." So she entered.

The house seemed to go on forever. Melissa tried not to be impressed, but was. "Your father must be richer than I'd thought."

"He probably is."

"But where are all the people? Servants, and so forth."

"They're at work. We hire temps and rent them out by day. They pay for themselves and make us a nice profit."

What a good idea, thought Melissa. I'll do that when I grow up.

They left the house by a back door. Peter pointed to another nearby building, white walls, no windows. "That's it. My menagerie."

At the menagerie entrance, Peter punched in numbers on a panel, 683597213. Melissa watched closely. Her daddy'd said people who know numbers that do things have power. She'd remember 683597213.

The door swung open. She went inside. All she saw was a lot of huffing, clunking machinery. No animal noises. No animal smells.

Peter took her past the machines into a large glass-walled hall. Still no smells or noises. Maybe his animals were only virtual.

Then she saw the walls were really glass cages. She looked into the nearest one. It had a rabbit in it, all connected to wires and tubes and stuff. The rabbit looked healthy, but there was no life in it. It might as well have been molded from wax.

She hadn't come all this way to see wax animals!

At her shoulder Garrity Three spoke in a lectury voice. "This, and my other rabbits and guinea pigs are for tests. They're modified to be compatible with my unique biochemistry. I need a lot of them. They have to last a lifetime, and I will enjoy a very long life."

"All your animals are asleep?"

"Not asleep. In suspended animation. Thus they do not age, and will be in excellent condition when they are needed."

"But they're not any fun. I don't think I'll stay here."

"Please do. At least until you've seen my larger beasts."

"Well, all right."

Beyond the rabbits and guinea pigs there were cages of baboons, each one bigger than the one before. Garrity Three, pointed nose pointed up, lectured on. "These are not for tests, but for organ transplants, in this instance, hearts. You'll note they are graded in size to match my growth. Some, I've already outgrown. My father will dispose of those when he gets around to it. Now something special."

He guided her to a cage containing a gorilla a dozen times bigger than she was. He was scary. Even asleep, his sharp teeth showed.

"This is my favorite, Cardiac Emperor, with my adult heart."

He wasn't Melissa's favorite. She went on ahead.

"I wish you wouldn't hurry me." Peter caught up and glared at her. She was looking at a lot of monkeys in separate cages. After a moment's silence, he said the monkeys were for endocrine glands. Then he grabbed her arm and pulled her on.

"This is my armadillo. It has something to do with leprosy, should I

contract that hideous disease. Next, my oryx, my spare liver. Where are you going?"

In a cage further on, Melissa had spotted a huge and beautiful tiger. The oryx couldn't hope to hold her.

The tiger was the prettiest animal she'd ever seen, prettier than Henrietta. His fine orange-and-black fur gleamed like silk. There was a smile of happy peace on his face. She ached to wake him up and tell him how beautiful he was.

"I call him Shere Khan. He is here for my kidneys."

This lovely tiger was to be cut up to replace this nasty boy's kidneys? It can't be, she thought. It can't be!

In cat talk, she thought, tiger, tiger, I won't let it be!

She wasn't hearing Peter. Suddenly he was right in her ear. "I said, would you like to see the control panel to wake the animals up?"

Her daddy'd told her controlling control panels is power.

She said: "Yes, I would. Please."

Garrity Three marched her to the console in the middle of the hall. It was like five hundred entertainment centers all in one.

As she bent for a closer look, she sensed Garrity Three eyeing her up and down like that surgeon had in the hutchery.

Garrity Three said, "If you will pull up your skirts and show me your underclothing, I will show you how the controls work."

Backing away, Melissa was half minded to stamp a foot, tell the boy what she thought of him, and leave.

She remembered what her daddy'd said about control panels. Would he mind if she showed a little something to see how this one worked?

Surely not. Besides, she had on really pretty panties.

She pulled up her skirt a tiny bit, not giving him any big show.

"More," said Peter.

She hoisted her skirt a few millimeters further.

That was enough, apparently. He punched in an access number on the console. Melissa watched and remembered. Everything lit up.

"Would you wake one little rabbit, Peter, just for me?"

Peter said he'd better not.

Melissa swirled around, skirts flaring. The boy peered through his thick glasses. "Well, all right. Perhaps just one."

Melissa watched. SELECT. RABBIT ONE. REVIVE. Nothing to it. No more complicated than an ordinary computer. Less, really.

Noises came from the first rabbit cage. She ran to it, and was just in time to see tubes and wires lifting away from the rabbit. In seconds, it wasn't a wax bunny any more, it was a living, breathing creature, staggering to its feet. Then it was bouncing around in its cage, frisky as Henrietta.

"Damn," said Peter. "I forgot to punch in the tranque code. They have

to wake up quickly. One never knows how much time one has in an emergency. But they're supposed to be tranquilized until they get to the surgical room."

Hoping to learn the tranque code, Melissa went back to the console. He didn't punch it in. Instead, he said, "If you will take off your panties, I will wake up another rabbit."

"What a bad little boy you are!" This time Melissa did stamp her foot. "I wouldn't dream of doing any such thing."

She was out of there, leaving Peter blinking behind his glasses.

Next day, at school lunch break, Peter ran up to Melissa, went "Nyah, nyah! Nasty little fat girl!" and ran away again. She was tempted to chase him, but didn't. Other kids didn't gang up on her like in some schools. Maybe they liked Peter about like she did.

Peter's brief visit set her thinking about the lie she'd told her daddy. It always made him feel good to hear some rich kid had taken an interest in her, so she'd told him this nice boy, Peter Garrity, had invited her to his home. She'd not mentioned menageries, tigers, panties, any of that, just told him enough to make him feel good. He'd felt good. But it had been wrong to lie to him.

That evening, her daddy came home with stuff about Garrity Two. He was VP of Medisurance "where we have our insurance," salary in the upper six figures. She'd done well to make friends with his son.

She didn't say what sort of friends she'd made. She did ask what Garrity Two was VP of. "Like, there's Operations, Finance—"

"How does my precious know so much? Somebody said he's VP, Incompetence, probably sees nobody incompetent works at Medisurance."

Next day Melissa asked Ms. Simpson what VPs, Incompetence did.

Ms. Simpson laughed. "I've heard they see their company doesn't hire smart people. Then there's a lot of lost data, data input into wrong files, and so forth. An insurance company can make a lot of money not paying claims until mistakes are corrected."

It sounded just the right job for the Garrity kid's father.

For two weeks, all went well. With a regular paycheck, there was lots of money for rent, school fees, and food. Melissa'd made no friends at school or at home. That was okay. She was fine on her own.

At school she saw the Garrity kid, but easily avoided him.

It wasn't so easy to avoid Dr. Blackheart. Quite often she ran across him skulking in the corridors. He'd found out who she was, addressed her by name. She was no more polite than she had to be.

Suddenly everything went wrong. Everything.

After school, it rained. It was no day to visit Yo Yo and Sarah on Scuffle Street. She went straight home to the hutch.

In the hutch, a light flashed on the message machine. She pressed for the message. It was from her daddy's work place. Her daddy was in Gimbel Majestic Hospital with severe abdominal pains.

Quickly Melissa punched up the hospital's number. She pressed keys to let the hospital's machine know she was inquiring about her daddy, a patient, an "Insured Temp."

A woman came on line. She could find no record of Melissa's daddy! Melissa begged her to search. She said she'd run the computer by her again.

Waiting, Melissa twisted her hair in her fingers until it hurt.

The woman came back. "I've found your father. He's here, classified 'Uninsured Temp.' The ward lists his condition as stable."

Melissa keyed off, "uninsured temp" echoing in her ears.

She remembered what had happened to her mummy.

She was terrified for her daddy, couldn't think straight, didn't know what to do.

She made herself, *made herself*, calm down.

The Medisurance card behind her mummy's photograph!

The moment she had the card in her hand, she was ready to run to the hospital. But she was still in her good school clothes. It wouldn't do to go there looking like a little rich girl.

She changed to jeans, a sweater. Then she was out of the hutch.

And into the arms of Dr. Blackheart! It was almost like he was waiting for her. She'd nearly knocked him down.

He grabbed her to balance himself. Balanced, he didn't let go.

"Please! I'm in a hurry!"

He held her tighter. Should she bite him?

"I'm sorry to have to tell you this, little girl," he said. "Your father is quite ill. I am to operate on him in the morning."

The tone of his voice told her he was exactly the sort of surgeon that had operated on her mummy! Her daddy was in terrible danger!

Blackheart was saying more stuff. "Why don't you come into my hutch and sit for a while? I could give you a sedative."

Now's the time to bite him, she decided.

She bit him.

He screeched, and let go of her.

She ran.

Out on the street, Melissa wondered if it might not be best to visit Medisurance before going to the hospital, and straighten out her daddy's classification. Their office was on her way, anyway.

Rain pelted down. Thunder rampaged overhead. I sort of know Garrity Two at Medisurance, she thought. A big VP like him'll help.

She dodged through raindrops to the Medisurance tower and went in. A guard asked what she wanted. She waved her Medisurance card. He

let her pass. The lobby was all soft lights, thick carpets, scented air. A receptionist at a big desk spoke to her. She took no notice and rushed on to the elevator bank. There was a list of people's names and office numbers. In no time at all, she found Garrity, forty-fifth floor. An elevator was waiting. She jumped in, pressed forty-five, and was on her way up, up, up.

The elevator stopped, swished open. Melissa emerged into an area fancier than the lobby. She didn't pause to admire. Near a door marked MR. GARRITY, VP, a secretary woman at a desk polished her nails. Melissa was past her and into Garrity's office before she could look up.

The office was huge, bigger than a hundred hutches. Behind a computer-cluttered desk, Garrity gazed through a window at the storm. Light, dark, light, dark, he went, as lightning flashed in the hills.

Melissa hurtled across the carpet to the desk, plonked down the Medisurance card. Garrity Two swiveled around, frowning.

"Please, Mr. Garrity, help me and my daddy!"

Garrity Two's frown deepened. He's angry, she thought. She rolled her little girl's eyes. They always worked on her daddy. Would they work on Garrity?

Yes, apparently. His face softened. His nose was pointed like his son's. Not much hair. He still didn't say anything.

Melissa hung her head, poor little orphan.

Instead of ordering her out, he came from behind the desk and put an arm on her shoulder. She thought of Dr. Blackheart, but didn't shake him off. There was a crinkly grin on his face. "What a lovely little girl you are. Now, what's all this about?"

Melissa squeezed out a tear. It might help. She told Garrity Two she knew his son, from school. Then she told him about her daddy, insured, but put in the wrong classification at the hospital.

She waved the Medisurance card under the VP's nose.

Garrity Two took the card, returned to his chair, and punched data into a computer. Numbers Melissa couldn't read from where she was scrolled on his screen.

Outside, thunder growled ominously.

Garrity Two glanced slyly at Melissa, like Peter in the menagerie. She wondered if he was going to ask to see her panties. He could have anything he asked, just so he helped her daddy!

He didn't ask for anything. He said, "I'm sorry. This card is a forgery."

At that moment Melissa knew she'd done wrong. She should have gone to the hospital, let them sort it out. If Garrity Two had made trouble later, so what?

Now she didn't know what to do. Jump up on Garrity Two's desk, grab the card, and run?

She flexed up and down on her toes.

It was already too late. Garrity Two shoved the card into a slot on his desk. She heard a shredder whir.

"I'm truly sorry," he said. "There's nothing this company can do for you. But I'm sure, in an emergency of this kind, the hospital people will take the greatest care of your father."

Sure they will, Melissa thought bleakly, Dr. Blackheart and all.

He went on. "You say you go to school with Peter? Would you like to come up to the house and stay with us till this is over? We'll gladly take care of you."

The leer on the man's face told her how. She ran!

Back on the street, Melissa found a quiet alley. With rain and thunder still going on, she sagged down against a wall until she was sitting in a slimy puddle.

Yo Yo Johnson's voice! "What's aching with you, Bonnie Girl?"

Splashing dirty water, she threw herself into his arms.

He hugged her. "You passed me running. I followed you. I'm glad I did. Such hugs as this are rare and beautiful. But now, please, tell me what the trouble is."

He released her. She told him.

He said: "We must go to the hospital, and see what can be done."

They went.

Yo Yo knew the hospital. The hospital knew Yo Yo. They weren't there two minutes before Yo Yo found the person they had to see.

Ms. Victoria Swanky, a top Administrator, had the superior air of a high grade perm. Without Yo Yo, she'd have scared fury spitballs out of Melissa.

Yo Yo said: "This little girl's daddy is here, we believe, in the wrong ward. He's no uninsured temp, he's an indigent."

Ms. Swanky searched on her computer. "He's here, and definitely in the right ward. His classification's definitely uninsured temp."

"No, ma'am, I have to disagree. He is an indigent. He and his little girl live in boxes next to mine, on Scuffle Street. You do not find temps living in boxes on Scuffle Street."

"You wouldn't lie to us, would you, Yo Yo?" Ms. Swanky shot him a searching look. "No, I'm sure you wouldn't." She examined Melissa. "This little girl does look more like a Scuffle Street person than a temp's daughter. Is Yo Yo telling the truth, little girl?"

"Yes." It was hard for Melissa to get out even one single word.

"Then I suppose I've no alternative but to have him transferred." She set to work on her computer again. "There. Transfer completed. I see Dr. Blackheart is to operate on him in the morning. Rest assured, little girl, your father will get the best of care."

Blackheart's still going to operate! What to do now?

"C-can't somebody else do him? Tonight?"

"He'll be fine. Ice packs. Sedation. There's nothing to worry about." She looked away. "Anything else, Yo Yo?"

Melissa silently tried to make Yo Yo say, yes, get another surgeon, but he didn't. He said, "I believe not, ma'am. We're most grateful for the courtesy you have shown us."

With Melissa scampering behind, he hobbled away on his crutches.

She tugged Yo Yo's coat. "Could we go and see my daddy?"

Yo Yo paused. "I wouldn't recommend it. Good fortune has been ours so far. It never pays, Bonnie Girl, to push one's luck too far."

He moved on. Reluctantly, Melissa followed.

Outside the hospital, she told Yo Yo about Dr. Blackheart.

"It'll be all right," Yo Yo reassured her. "By law, only good surgeons may treat indigents. Blackheart must be one of them."

Melissa didn't believe it, but didn't know what more to say.

By then, the rain had stopped. Yo Yo took her home with him. Sarah welcomed her. She told Sarah her troubles.

Quite late, Melissa returned to the hutcery. She paused outside Blackheart's hutch and put a spell on him. But her spells never worked. The only way to save her daddy was to get another surgeon.

In her own hutch, thoroughly miserable, she kicked off her shoes, gazed at her mummy's photograph, asked her what else she could do.

Her mummy didn't say a word.

She thought about menageries, Garrity Two, his son.

Maybe there was a way to help her daddy and fix the Garritys!

She slipped on shoes again, went down to the streets. The moon shone brightly. She was soon on the snaky road up to the Garrity house. Coming out of the wood, she saw that it was lit up like they were having a party. Great. They'd be too busy to notice her.

She went around the house to the menagerie.

She keyed in the door-opening code, 683597213. Lights came on inside as the door opened. There was no alarm.

She went to the control console in the main hall.

She punched in the access code. The animal menu came up, SELECT.

Before selecting anything, she had to have a peek at the tiger.

He was just like before, silky fur, serene smile, beautiful. The boy's name for him was all wrong. She gave him a new one. Big Puss.

Back at the console, she selected RABBIT TWO, then, REVIVE.

RABBIT THREE. REVIVE. RABBIT FOUR. REVIVE. Going on with it, she heard the tubes and wires pull out of the animals, heard them bouncing in their cages like frisky Henriettas.

Presently she'd revived all rabbits and guinea pigs. It was time for bigger animals. BABOONS. REVIVE. MONKEYS. REVIVE. ARMADILLO. REVIVE. ORYX. REVIVE.

The livened-up oryx skittered up and down in his cage like he had a pogo stick on each leg. The rest of the animals chattered, gossiped, sang. Melissa caught some monkey talk, all joy and celebration. Nice. But, damn, they were noisy.

Now only the tiger and the gorilla were left.

Melissa wasn't sure about reviving the gorilla.

The managerie hubbub was getting to be too much. She couldn't think. Using every language she knew, she tried to get a bit of quiet. She was ignored.

Revive Big Puss and decide later about the gorilla? With all this noise, Big Puss wouldn't be able to hear what she wanted to tell him. She and he needed quiet time together.

So Melissa went to the menagerie door and wedged it open, then back to the console. She selected from the menu, RABBIT ONE, CAGE OPEN. The cage opened, but nothing happened. Of course. The Garrity kid had already dealt with Rabbit One. On, then. RABBIT TWO, CAGE OPEN. This time the bunny hopped out.

RABBIT THREE—and so forth.

Soon all the revived animals were out of their cages blinking, snorting, screaming. She told them, run outside in the moonlight, scatter, hide. Only the armadillo and the oryx didn't do as they were told. The armadillo wanted to explore every corner of the menagerie before he went, but eventually she was rid of him. The oryx, prancing up and down on his pogo-legs, didn't understand cow-talk, or pretended he didn't. She had to drive him out.

With all the animals gone, Melissa again wondered about the gorilla. It wasn't fair to leave him in his cage when everybody else was free. Was it?

She input GORILLA. REVIVE.

Cardiac Emperor came alive, stood erect, shoved his ugly face up against the glass of his cage, peered at Melissa, scowled. In monkey talk, Melissa said, "Be a good gorilla, and I'll let you out."

Apparently he didn't understand monkey talk. He roared at her in some language of his own, jumped up and down, did a somersault, towed up on his hind legs, and banged his chest.

She daren't let him out.

It was time for Big Puss. TIGER. REVIVE.

Melissa was at Big Puss's cage in time to see his wires and tubes disconnect. He staggered up on four tottery legs, swished his tail.

The gorilla snarled and roared.

Big Puss snarled and roared. Spitting and slobbering, he marched up and down his cage, whipping his tail from side to side.

In cat talk, Melissa said: "Calm down, Big Puss." Now she saw how big he was, she was afraid cat talk wouldn't work.

Wonder of wonders, it did.

Big Puss calmed down, said he'd be good, it was nice to be among friends. He sat on his rear like a well-trained dog, his head high, his eyes blinking at Melissa.

The gorilla was on a rampage, hurling himself against the glass wall of his cage.

Melissa ran back to the console. TIGER, CAGE OPEN.

In leisurely fashion, Big Puss strolled toward her. She urged him to get a move on, but he wouldn't. At the console, he sat down. His head was still higher than hers. "What's the hurry?" he asked.

Melissa gestured toward the rampaging gorilla.

"Don't worry, I can take care of him," Big Puss yawned. "Why did you break into my nap? I was having such a nice dream."

Melissa told him not to grumble.

"But I'm hungry. Tigers always grumble when they're hungry." He licked his lips with his long tongue.

Melissa could see more of his sharp teeth than she liked. "Maybe we can find you something to eat. Should we let out the gorilla?"

"I remember a gorilla once, when I was a cub—" Big Puss began a long rambling story for which they had no time. She interrupted. "Let's just leave the gorilla, and go."

His swishing tail told her he didn't like interruptions, but he let her lead him toward the menagerie door. Halfway there, there was a terrible clatter of shattering glass. In a flash, she was on Big Puss's back telling him, get outside and away as fast as possible.

Outside, there was still bright moonlight. As Big Puss carried Melissa by the corner of the Garrity house, she looked back, saw a monstrous gorilla shadow on the white wall of the menagerie.

Faster, faster, she urged Big Puss.

Big Puss speeded up. She could barely hold on. He galloped around the Garrity house, across the lawns, into the woods, and down the snaky road to Gimbel City.

There were no people on Gimbel City's streets at that hour of the morning. A pity. Melissa, on Big Puss, felt like a princess, and would have liked to have been seen. Slowed down now, Big Puss had his tail up and curved over her like a canopy.

Anyway, she'd fixed the Garrity kid! No long life for him, with his animals gone. Let his father run that through his card shredder and see how he liked it!

Now the next thing. This wasn't for revenge, it was for her daddy. On the way down, she'd told Big Puss what it was. He'd said he'd be delighted to do what was needed.

In minutes, they were at the hutchery. Melissa slipped off the tiger,

said thanks for the ride, and keyed the hutchery door open. Big Puss purred. They went inside, rode an elevator up to her floor. She settled Big Puss in the corridor, a bit away from her hutch.

She rang Blackheart's doorbell. After three rings, the door opened. Blackheart, in a long white nightshirt, leered. "Hello, Melissa. Won't you come in?"

She didn't move.

Big Puss did. Just as instructed, he charged along the corridor, reared up, placed friendly paws on Blackheart's shoulders, and shoved him back into the hutch.

Melissa tripped the latch and closed the hutch door, leaving them alone to discuss whatever tigers and surgeons might want to discuss, like, say, Big Puss's surgical skills.

In her hutch, she toyed with the entertainment center, couldn't find anything interesting, picked up a book, couldn't concentrate.

When the clock by her mummy's photograph said four, she decided it was time to find out if Big Puss and Dr. Blackheart had gotten close to one another. She left her hutch, flitted across the corridor, and opened the Blackheart door.

Big Puss eyed her drowsily from where he sprawled on the carpet. A lot of signs suggested he and the surgeon had gotten very close.

Melissa told Big Puss, well done, now it's time to go.

He said he didn't want to go, he wanted to relax.

Melissa said he could relax when he was back up in the hills.

He said, what about the leftovers? His mummy'd told him he had to always finish off leftovers.

Melissa said Gimbel City was no place for a tiger in daylight.

"Just one little ten-minute snooze?"

"No, no. You have to go, now."

He said she was cruel little girl, but he stood and stretched.

They left the hutch, Melissa locking the door securely behind them. She escorted Big Puss down to the street. You're on your own now, she told him. Get out of the city as fast as you can. Maybe up in the hills you'll catch yourself an oryx.

He said he was much too full to run.

She said, I'll bet that gorilla will catch you if you don't.

He said, I suppose you're right. Well (he nuzzled her), no rest for the wicked. We'll always be friends.

We certainly will, Melissa called after him as he loped away.

Melissa called the Gimbel Majestic Hospital. Deepening her voice, she told a real-time person Dr. Blackheart was ill, couldn't handle his morning's schedule. The real-time person said thank you.

A bit later she called the hospital again and inquired after her daddy.

He's worse, she was told. They'd paged Dr. Blackheart, but he hadn't answered. "Oh," the hospital person continued, "a message just came in. Dr. Blackheart is himself sick. I suppose we'll have to get another surgeon. You want to call again in a couple of hours?"

For two hours, Melissa fiddled and fussed to make time go faster, but it wouldn't.

One interesting thing happened. The entertainment center came on on its own. Emergency. A dangerous gorilla loose. The savage beast had invaded a private party at a hilltop mansion. Only the heroic intervention of Mr. Peter Garrity had driven it off. Film later.

Garrity Two, Melissa thought, hero!

At last the time came to call the hospital again.

The hospital person said her daddy had had his operation, and was responding satisfactorily. She could come and see him if she liked.

Gorilla or no gorilla, Melissa had to go.

It was almost dawn. She didn't meet Cardiac Emperor. Her daddy was already sitting up, cheerful. He got still better as the day wore on.

Several days passed before the hospital would release Melissa's daddy. They couldn't throw him out early, he was classified indigent, nowhere to go. By then it was true. With no money coming in, Melissa had had to abandon their hutch and quit school. She was living with Sarah and Yo Yo, and was happy, except, with no entertainment center, she didn't know what was going on in Gimbel City.

Yo Yo did bring home snippets of gossip picked up on his travels. There was this menagerie up in the hills, animals all escaped, Gimbel City hunters, fun out shooting. A few days later, hunters, a charging gorilla, some hurt. Later still, Mayor, emergency, National Guard, tanks and armor-piercing missiles, gorilla dead.

Yo Yo didn't bring home one word about tigers or surgeons. Melissa was happy not to hear about Blackheart, but she'd have liked news of Big Puss. But no news was good news.

From the hospital, her daddy found a new job in another city, transportation prepaid.

Melissa saw a headline on a blowing scrap of newspaper. POLICE: NO PROGRESS IN MENAGERIE MYSTERY. It was a relief, not that she'd been worrying. Gimbel City police were all temps and not much good.

When the hospital released her daddy, she met him at the bus station. Sarah was there, and Yo Yo. She shed tears, hugging them goodbye. She'd never forget them, or Big Puss, or Gimbel City, or how she'd taken care of her daddy! ●

THE GENETIC ENGINEER THROWS A COCKTAIL PARTY AND DRINKS TOO MUCH: A SESTINA

Not tenured yet, I play the gracious host
And press hors d'oeuvres onto this bovine breed.
From these homunculi I might extract a strand
Of code that would repay my time to splice
With a bit of frog, or other, better form.
These fools sail off the edge of the genome map.

My work? In sum? Very well. Upon that map
Of staggering acids that make up the host,
I impose a fine economy of form.
I inscribe a truer course, a route to breed
Caravansaries of lush and costly splice—
Such as algae that suck oil spills from the strand.

With funds from Biogen, I yank the strand
That weaves the world, and tugging—thus!—I map
The sleeves of our shapes as they unravel, splice
Our fluid dreams to lumpy flesh, am host
To all groaning aspirations of our breed,
Ennable the halting rudeness of our form.

I hate parties. If I hand you a form,
Ask you thumbs up or down on each genetic strand,
I wonder whether you will choose to breed
Any trait here on exhibit? Can you map,
On the scrupulously bland face of your host,
A quintessential feature worth the splice?

Perhaps some sort of god could cut and splice
Her legs, my ass, your chest into a form
More pleasing, but without the holy host
The work is ours, and today a better strand
Of mouse, not trap, will cause the world to map
A path directly to our doorways. Let us breed.

No, this is not a come-on! Why, I breed
A test-tube spawn of millions. If I splice
My loins to yours, what is the thrill? Come, map
The contours of my bed—an empty form,
Like the vacant shell that trips you on the strand,
Gutted, by the salt and surges, of its host.

What a host of errors spewing Nature breeds,
Each man a twisted strand, a knotted splice.
Your random form is straightened on my map.

—Andy Duncan

Robert Reed

MOTHER DEATH

Book one in a projected tetralogy
(Asimov's, November 1993)

"...powerful beings can
wreak when they walk
among ordinary men
and women."

Illustration by George H. Krabner





If preparedness means that you have weighed your enemy's options and taken every sound precaution, then we are unequivocally prepared for whatever is to come.

If it is possible to keep a secret in our porous little universe, then we have one or two or possibly three great secrets in our possession.

If confidence produced a light in those who possessed it, then each of us would shine like the galaxy's exploding heart.

Paranoia is our greatest attribute.

Patience is our watchword.

Our only imaginable concern—one barely worth mentioning—is that Alice, in her malicious wisdom, did give her talents to a Baby... and who can say what any child in any circumstance will at any given moment do...?

—*a dispatch, from the Earth*

After a lengthy and generally fair trial, judge and jury found the accused guilty on all counts: Avoiding surrender once his Family was officially disbanded; illegal terraforming coupled with the unkind manipulation of sentient organisms; misleading investigators in pursuit of Chamberlain ringleaders; unbecoming arrogance; plus an ancient charge involving the fondling of women with fingers and penises composed of substances unknown.

After an appropriate delay—slightly more than three minutes—the Emergency Tribunal passed the expected sentence.

Without ceremony, the prison gates dissolved, and Avram Chamberlain was thrown to the mercy of the waiting mob.

It was a clear night on a minor world that until this moment had little place in history. Anticipating the verdict, three million citizens had gathered outside the prison. Many were refugees from the Core, and everyone had a thirst for vengeance. When the gates vanished, the mob pressed forward; nearly eight thousand were critically injured in the wild stampede. It was an armed contingent of off-duty police who finally brought the Chamberlain into the wide, open-air plaza. And with his appearance came a ringing silence. No one spoke, or breathed. The prisoner walked with a numbed calm. His old-fashioned body was naked, and except for scraped knees, he was fit. Hands and feet were unbound. Thick red hair lay short and neat above the most famous face in the galaxy, and piercing blue eyes looked past his captors, gazing up at the night sky.

The Core had just risen.

It was a spectacular sight, and horrible. On some worlds, the popular game was for people to give themselves a selective amnesia. Forgetting why the Core was exploding, forgetting how many hundreds of billions

had died, they were free to look at the sky without pain, marveling at its surreal beauty—a vast storm of radiations and superheated plasmas rushing from the galaxy's heart, shredding suns and worlds, and now, at its height, smashing into dense clouds of interstellar dust and gas.

Clouds gave the explosion its intricacies, the raw purple-white light transformed into swirling masses of crimson and turquoise and cerulean. Dust and gas shielded the rest of the Milky Way, absorbing the terrible energies before they could reach the spiral arms. Without those barriers, natural and otherwise, the galaxy would have already died. Every competent simulation said so. Everyone claimed that the storm would worsen a little more, or a lot more. But after another few millennia, it would begin its very slow fade. Then in another ten or twenty million years, the Core would grow cold again, at peace, and if any people were left alive, they would have to make do with a considerably duller sky.

Avram stared at the distant storm, never blinking.

The only problem left for the angry mob was the means. What's the very best way to kill a Chamberlain?

A sour voice roared, "Tear him apart with your hands! Your hands!"

Another screamed, "Cook the fuck whole!"

Then a third voice, closer and more lucid, suggested simply, "Whatever you do, take your time! Do it slowly!"

Suddenly everyone was speaking, offering advice in the art of torture.

Thousands reached for the Chamberlain, and the police found themselves using electric wands and cold-gas guns to push back the crush of bodies. It was pure self-defense. A mob of this size would butcher dozens, perhaps hundreds of people. Innocent skulls would be kicked apart, and the anonymous brains would be carried off like trophies, then consumed with plasma torches and homemade A-bombs. The police realized they were sure to take the heaviest casualties. Not only would they die, but therable who murdered them would boast about it later, each claiming, "I'm the one who did it! I killed that damn Chamberlain!"

Wands and guns fired without pause. Flesh was stunned and frozen, and people collapsed in waves. As she fell, one woman managed to throw a chunk of gray stone, hitting the prisoner in his face. Only then, finally, did Avram seem to notice the mob. He blinked and gasped, his expression more surprised than afraid, and stroking his bloody chin, he took a tiny, useless step backward.

The mob let loose an enormous roar.

For every good reason, this wasn't fair. Avram was just a middle-aged Chamberlain. He had spent his life serving humanity as well as his own great Family. What were his crimes? Until a few months ago, he'd had the strength to move worlds, and more important, the morality to keep him from doing harm with his talents. Avram was never a true god, but instead he was a scrupulously ordinary person who wore a godly frame

and conscience. That's why the thousand Families had formed in the first place. Didn't these people remember their own history? The Families had built the Great Peace. They had terraformed worlds and pacified suns, and acted as explorers and diplomats, and with all the talents on hand, they had done everything in their power to keep this ungrateful galaxy at peace.

Avram cursed his older, infinitely more powerful sister. "Alice!" he cried out, spitting blood on the police. "This is your fault!" he screamed. "All yours!"

Alice had done the unthinkable. Working in the Core, in complete secrecy, she and others from half of the Families had built a new universe for themselves.

It was an intricate, demanding enterprise. Too demanding, even for the likes of Alice. The umbilical between universes was unstable. For a horrible moment, the tiny incandescent child touched its mother, causing a blaze still spreading today.

Before judge and jury, Avram had explained what should have been obvious: He was never part of Alice's work.

In his entire long life, he'd never even met the crazy bitch.

Learning that the Core was exploding, he was astonished. Like everyone in the courtroom. And when he realized that another Chamberlain was partly to blame, he was filled with a horror and revulsion that would have killed any lesser man.

"The guilty deserve their punishments," he kept saying.

Then, in his next breath, "But don't blame the innocent. I beg you."

Over the weeks and months, Avram had listed his life's glories: He had played small but integral roles in a thousand treaties and diplomatic missions. ("None of you have worked like I have for the Great Peace.") Like most Chamberlains, he had made his living by terraforming worlds and entire systems—always for fair market prices. ("Only a true god doesn't need money for his miracles.") Yet Avram always gave away his talents to charitable causes. ("What good Chamberlain doesn't?") Fifty thousand years ago—as the first waves of refugees came from the Core—Avram had helped this little world improve itself, tweaking its atmosphere and its sun to let it double its population without too much hardship.

Those same refugees, embittered by their struggles, eventually helped the untainted Families lure Avram into their trap. And they greedily helped strip him of his talents before his trial began.

Intellect was a fundamental talent. The man standing naked in this plaza was a moron compared to his old self. In this mutilated state, he had tried to sway opinions and emotions, and on both counts, he had failed badly. Catastrophically. Thinking of the verdict now, Avram began to laugh with an easy rancor. Didn't these bastards understand? Wasn't it obvious? Most of what Avram was, innocent or guilty, they were. The

creature standing before them was the same as them—small and extraordinarily weak, slightly more articulate than stone, and in the end, inconsequential.

Avram couldn't count the angry hands reaching for him. The air seemed to tear with the screams. *I am going to die now*, he warned himself, not entirely displeased. Yet as he closed his eyes, he heard a voice, close and strong:

"Why not let a child kill him?"

The words were framed in a reasonable tone. A quietly compelling tone. For a slippery instant, Avram found himself thinking: Yes, why not? He could see a logic. If an execution was a good thing, who stood to benefit most for taking part? A child, surely. An innocent, pure soul too young to remember the Great Peace, much less those times when the Chamberlains were universally adored.

Avram shuddered, astonished by the turn of his mind.

Three million bystanders heard the voice, and they welcomed its words and the oddly seductive logic.

The plaza grew quiet.

Standing in plain view, between the police and the mob, was a half-grown boy. No one had seen him before now, and afterward, no one would recall his appearance—not his face or his build, or anything else tangible. The only detail that lingered was the knife he was holding in his right hand, fashioned from pink stone and a simple bone hilt.

With a soothing, almost liquid voice, the boy said, "Let me kill him."

No one moved, or spoke.

He took a step, then another, passing through a curtain of cold vapor that should have frozen him in mid-stride. Half a hundred unconscious, stamped people lay in a heap before him. He stepped over them with a gentle grace, smiling now, looking at the nearest of the police without malice or scorn. Later, witnesses would talk about how harmless he seemed. Like a boy about to play a game, they said. Centuries later, when the public finally learned the boy's identity, the surviving witnesses would grow quiet and thoughtful. Some would laugh painfully, while others simply cried.

The only person who knew enough to be afraid was the prisoner. With a cold clean terror, Avram shouted, "Go away! Leave me alone!"

The boy winked at the highest ranking officer, saying, "Ma'am? Would you please hold him for me?"

The police couldn't help him fast enough.

"Don't!" Avram cried out. "I don't want to . . . no . . .!"

But Avram couldn't defend himself. He was nothing but a retrofitted ape, and five strong officers managed to restrain him, holding him absolutely still as the boy put that odd knife to the throat, slicing it open, cutting the larynx in mid-scream.

The next cut opened the skull beneath the short red hair.

That's a damned sharp piece of stone, the officers thought. And that was about all that occurred to them.

With his free hand, the boy removed a shiny, delicately crenelated brain, placing it under his arm like a loaf of bread. Then he set out in every direction at once. He walked past everyone in that explosive mob, whispering to them, telling them to go home, telling them that the Great Peace hadn't died and they should honor it in their lives, always.

He vanished without trace or fuss.

People assumed that he would destroy the criminal's soul, as promised. No one ever touched him or even thought of questioning his motives.

"I believed him," thousands remarked with the same unconcerned voice. Even when they knew who he was and what eventually transpired on the Earth, they said, "I don't know what you're saying. To me, he seemed like a very good person . . ."

2

At irregular intervals, usually twice every century, our single prisoner undergoes a thorough examination:

We drain the blood from her body, and every cell and nanoliter of plasma is analyzed in scrupulous detail. Muscles and bones as well as organ tissues are biopsied with the same rigor. Her neural system—a sketchy remnant of her former mind—is subjected to every benign test, plus several invasive procedures that have caused some degradation over the last millennia. Staff psychiatrists as well as respected colleagues are able to question her at length, assuring that her mental health is adequate. (What purpose is served in imprisoning someone who can't understand her crime? Where would be the punishment, or the just sense of vengeance?) Then once the interviews have concluded, the Nuyens and other untainted Families are allowed to meet with the prisoner in private, making their own tests, and if they wish, torturing her.

We assume that even after a hundred thousand years and untold effort on our part, Alice continues to hide portions of herself. But if we persist, with luck, the truth will eventually be pried from whatever is left of her.

—Alice's jailer, confidential

The Core was dead, and the rest of the galaxy was in chaos: Civil and intersystem wars were common. Apocalyptic religions were spreading. Refugees moved in desperate waves, searching for new homes. Half of the Families were officially disbanded, while the other half were spending their days hunting for Chamberlains and Sanchexes and anyone else who wouldn't surrender their godly powers.

Yet despite the enormous turmoil, the mother world was enjoying peace.

The Earth had never been richer than it was today. And if the truth were told, Alice Chamberlain was responsible for most of its recent success.

The most famous criminal in Creation was being held in solitary confinement, inside a deep-mantle facility built and maintained specifically for her. The Earth's Council paid the bills, but those expenses were trivial. What terrified people, civilian and Family alike, was the possibility that someone would steal Alice away. After all, she was the black angel who had brought a judgment day. By owning her, any borderline movement or newborn faith would move into sudden prominence. Or a disgruntled god from one of the disbanded Families might be tempted. More than a few of them had declared that Alice's imprisonment was obscenely cruel, and at its heart, pointless. Their prisoner wasn't the woman who helped destroy the Core. That creature was dismantled long ago. What was sitting inside the tiny white cell was nothing—a bit of dermis left behind by a murderer's hand, scrubbed free of blood, and identity, and its essential soul.

Renegade Chamberlains were considered the most dangerous enemies.

Various specialists, human and otherwise, did nothing but assemble and update lists of potential attackers, and the same name reliably occupied the first slot:

Ord.

He was the last Chamberlain. The Baby. Alice had befriended him during the days leading up to her surrender. She had felt sentimental toward him and the innocence of youth, perhaps. But some years later, Alice slipped away from her first prison cell, and in those critical minutes, she met with the boy, in secret.

Alarms had sounded across the system, accomplishing nothing.

Then the black angel returned to her cell, accomplishing the trick just as easily and as suddenly as she had managed her escape.

That's when Ord vanished. With his brother Thomas, he went to the edge of interstellar space, pausing at a secret location where great portions of Alice were being stored. There they found fabulous machines composed of strange matter. There were talents that only a god could embrace, and perhaps no god could entirely control—all waiting to be cataloged and studied, and eventually destroyed. But together, the two Chamberlains broke into the facility and stole much of what Alice had been. Then with a terrific acceleration, Thomas and the Baby left the solar system, and eventually, they left the Milky Way, too.

An emergency team chased them, and eventually caught them.

But the team was beaten and sent slinking home again—tens of thousands of years later—bringing the terrible news that Ord was still alive and wielding Alice's most dangerous powers.

He was the black angel reborn.

Perhaps.

No one knew where to look for Ord. But if he was still streaking across the universe—a likely prospect—little time had passed for him. He was still the Baby. Impulsive, and powerful. And most disturbing, a novice in everything important.

What if the boy-god returned to free his sister?

That was a potent, enduring question.

And there was a rash answer that was equally enduring. "We should kill Alice," millions proposed, often with the same blunt certainty. "A simple execution," they advised. "Or we let her escape, then vaporize her. Or we arrange any kind of accident. The more preposterous, the better. Whatever it takes to get rid of the old butcher!"

But the simple and the rash never have simple, clean consequences.

It was a Nuyen who dismantled any hope for an easy homicide. Like every untainted Family, hers had retained its seat on the Earth's Council. "Let me remind you of three cold certainties," she shouted from that seat. "First of all, young Chamberlains are usually possessed by a strong, often inflexible sense of morality. If that boy returns someday and learns that we signed Alice's death warrant, then he may feel obligated to punish each of us in some suitable way."

A collective shudder passed through the Council's chamber.

"Certainty two," said the Nuyen. "Alice may wish to be martyred, and we would be helping her in her cause. Speaking for myself, helping that monster is something I don't intend to do any day soon."

Most of the Council members gazed off into the distance, asking themselves how ordinary people could decipher the wants of a creature like Alice.

"Certainty three."

She said it, then said nothing else, drawing their eyes. A black-haired creature of unknown dimensions and astonishing age, she sat high in the chamber, her seat craftily positioned so that she seemed to hold no special office, yet none of her smaller, weaker colleagues could turn in their seats without noticing her. The archaic face was smiling, they realized. She was wearing a big mischievous grin. Surprising, and in its fashion, disconcerting.

After awhile, the Nuyen repeated herself. "Certainty three."

"We heard you the first time!" shouted the Council president—a fearless little ectotherm of no certain gender or political persuasion. "Just tell us!"

The grin became an austere glare. "Alice is valuable only while she lives," the Nuyen explained. "And should that boy ever come to rescue her, then her value is magnified a thousandfold."

"Value?" the president whispered.

She heard him from halfway across the chamber, and with a nod, she replied, "As a lure, she's precious."

There was an electric silence.

"Consider this," she said. "If we make ready for Ord's return, we'll need resources and capital. My Family is prepared to donate both to such a good cause. The other Families will do the same. And I'm quite certain that once the situation is explained to them, every responsible government for a thousand light years will be just as generous with their gifts."

"After all, it's in their best interest to have us holding Alice for them. Squirming on the proverbial hook, as some might say."

A brief pause, then she added, "If the boy does arrive, we'll be ready."

"And if he doesn't?" shouted the president.

"That will be fine, too," she replied. "The Earth will be left richer and more secure than ever, and I should think, happy beyond measure. . . !"

Since that historic day, the Nuyen had been replaced on the Council by a succession of sisters and brothers. The Earth's population had tripled, and the solar system was an urban park singing with nearly twenty times as many citizens as before. New refugees arrived by the minute. A few still came from the Core, but most were fleeing smaller, closer catastrophes. As a rule, they were wealthy or uniquely talented. Otherwise they couldn't have booked passage on a starship or paid the draconian immigration fees. Only the most privileged could afford citizenship on the Earth. Many would impoverish themselves for the security it offered. The galaxy had turned deadly; a glance at the night sky proved as much. "But the mother world is safe," parents would promise. "A storm roars outside, but we're under a good strong roof here. Do you see?"

"I do, Father."

This family came from a modified M-class sun not fifty light years distance. Half of their fortune had purchased the starship, and the rest had ensured them the honor of becoming new citizens. Mother and Father made an attractive couple: Tailored for a lush tropical world, they were barely a meter tall, equipped with prehensile three-tipped tails, expressive wide faces and the oversized, florid genitals that once were the fashion on their world.

A dead world now.

The boy never knew his parents' home. A quiet and pleasant near-child, he was born during the voyage and had spent his entire life inside the same cramped cabin. The prospect of being anywhere else obviously thrilled him. Drifting before a universal window, he was using it as a simple window, studying the Earth with his blue-black eyes. There were no continents anymore, no visible oceans. Every square kilometer was adorned with towering cities, graceful and oftentimes famous, and the crust beneath was a sponge filled with lesser cities and pockets of ocean

and elaborate farms where enough food for a quarter of a trillion people was produced every day.

There were two major moons. The nearer was the Earth's natural satellite, and, like the Earth, it was a crowded, lovely place. But the other was different. A simple framework of ordinary superconductors enveloped a round mass of dark matter and bizarre plasmas—a liquid blackness swirling rapidly, hinting at fantastic energies barely kept under control.

The boy knew exactly what it was, but for appearance's sake, he asked, "What's that ugly thing do, Father?"

Someone replied with a snort.

Pretending to be startled, the boy spun around. Floating in the doorway was a uniformed woman—an immigration officer who interviewed the new refugees. She was taller than most, and strong, and her features were untailored. Purely archaic. A boy from a distant place was entitled to double his surprise. Blinking, he pretended to be flustered, and with a voice designed to mislead, he shouted, "That's a Sanchex face! Are you a Sanchex—?"

The father growled at his son, then offered a clumsy apology.

Like the Chamberlains, the Sanchexes had been disbanded ages ago. Their wealth was cataloged and divided among the Core's victims, and by decree, every last one of them was ordered to surrender to the nearest authorities, then allow their powers to be stripped away. Then they were supposed to be tried, and if found innocent of important crimes, they were given their freedom and a small stipend to help them build new lives.

Utterly ordinary lives.

That was this Sanchex's fate. But she didn't offer any autobiographies. Instead, she approached the youngster, placed her face close to his, then with the warm stink of garlic and fish innards, said, "A lot of us work in customs. And I bet you can guess why."

"Because you're mean," he said.

"And spiteful," she added. "And suspicious. And easily angered. And just as quick to act on that anger, I'll warn you . . .!"

She looked and sounded like a certain female Sanchex, but the name drawing itself on her uniform, in a thousand languages, was never Ravleen.

An old childhood friend.

"To answer your extremely rude question," she continued. "That 'ugly' object belongs to our defense network, and it's beautiful. It's a wonder, and I love it, and I don't know what it does, and neither of us will ever know anyone who will know what it does. Do you understand *that*, young man?"

"Yes, Miss Sanchex."

The woman recoiled, then took a long suck of air before warning, "We don't use that name anymore. The Sanchexes are extinct."

"Yes—"

"Madam Voracious."

"Yes, Madam Voracious."

She showed everyone a grim Sanchex smile, then thundered, "Now let's discuss *your names* . . . ?"

The boy answered first, in a low voice.

"Excuse me?" said Madam Voracious.

He repeated himself, almost smiling, and for a slippery, mischievous instant, it sounded as if he had said, "Ord."

3

Small tours will serve us this way:

They will feed public curiosity. They will project a sense of openness on the part of the surviving Families. They will educate. They will mollify. They will give our youngest children valuable practice in the art of addressing audiences. And most important, they will continue the humiliation of the vanquished Families . . . in particular, the Chamberlains. . . .

—Nuyen policy statement

The immigrants took up unassuming, generally unhappy lives.

Their fortune had been exhausted. They could barely afford an apartment less than a tenth the size of their starship's small cabins, and the parents spent their days trying to ignore the new world. In their district, the crowding and noise were relentless. Millions lived next door, and everyone was tailored in a different way, with different physiologies and languages and customs. On the Earth, even basic goods were depressingly expensive. Work was easy to find, but menial. Over time, finances were sure to grow tighter. Looking at one another, the parents asked: Why did we think we could live here?

For them, the Earth was a prison.

On their worst days, they could barely speak or even leave their bed, forcing their son to patiently watch over them, voicing encouragement and sometimes taking charge of the family's day-to-day responsibilities.

It was a standard procedure to shadow every refugee with paranoid AIs. For many reasons, including the recommendation of the immigration officer, their family was given extra attention. Yet nothing incriminating was observed, and after six months, all but one of the AIs were given new, more lucrative assignments.

It was the boy who offered their names to the Family lottery, which was perfectly normal. Most of the citizens routinely did it every day, com-

peting for the chance to tour the abandoned estates. The chances of winning were minimal. Even impossible. Only a few dozen slots opened each day, and most were filled through bribes and political favors. But on his twenty-third attempt, the impossible happened:

Three slots were granted to the immigrants.

Alarms sounded in a thousand high offices. Quantumware and various officials were interrogated at length. A brigade of AIs as well as human officers began to follow the winners, studying their composition, and to the best of ability, their thoughts. Then as a final precaution, an adult Nuyen dressed up like an unmodified youngster, and he took the role of the smiling, charming tour guide.

"Hello," the Nuyen began, examining his audience with many senses. "It is a lovely morning, isn't it?"

Happy souls agreed. Yes, it was delightful.

The rest of the Earth existed in a perpetual summer—a consequence of so many machines and warm bodies. But on the Families' estates, climate obeyed the angle of the sun. Summer was a few months of intense growth sandwiched between the cold dead winters. Seasons meant wealth and waste, but their guide mentioned neither. Focusing every sense on the mysterious boy, he asked himself, *Are you Ord?*

Nothing tasted unusual, much less remarkable.

Their guide introduced himself, saying simply, "I am Xo."

The boy didn't blink, and his heart didn't quicken, and no portion of his visible mind showed surprised or more than usual curiosity.

If anything, it was the Nuyen who was anxious. For as long as Xo could remember, this was his job. He was a scent hound testing the wind. This was a common situation: What if the lottery system had been manipulated, giving *him* access to the estates? At first glance, it seemed like a ludicrous possibility. Someone with Alice's powers wouldn't bother with this kind of subterfuge. But Xo grew up with Ord, and he knew him, and he could almost believe that the boy would find this route to his home alluring—camouflaging himself inside the Families' own contrived game.

"Xo," he repeated, using a thousand channels reserved for the Families. Then in the next nanoseconds, he told anyone with the proper ears, "It's me, yes. Your dear friend. Welcome home, Ord."

There was no response.

But the boy raised his tail, then both of his hands. "Sir," he said with a soft respect. "Will we visit your home too, sir?"

Xo shook his head, saying, "We won't have enough time today. I'm sorry."

The boy looked saddened.

"Why would you want to see my house?" Xo inquired.

A quick, guileless voice said, "The Nuyens are my favorite Family, sir." "Are we?"

"One of your brothers helped my world during our stupid wars." Emotions played across his face. "I've always wanted to step inside your house, sir!"

When Xo last saw Ord, he was standing at the mansion's door, holding a crude atomic weapon in both hands. Its detonator had been rendered useless, but Ord didn't care. He was driving it into the stone walkway, threatening to keep pounding and pounding until simple random motions caused the uranium to detonate.

In a sense, nothing in Xo's life had changed since that moment.

He was still a worried, immature boy cowering behind the door, watching out for his bomb-wielding friend.

The guests were ushered through several of the abandoned estates, each one held in trust by the Nuyens. Lunch was a modest feast served inside the Sanchez pyramid. Xo explained that once everyone had their fill, the tour would culminate with a studious, scornful walk through the Chamberlains' mansion. "We're climbing a ladder of guilt," he remarked, pretending that the cliché was profound. "Sanchexes did the most dangerous assignments in the Core. Which was why they were the second Family to be disbanded wholesale . . . two moments after the Chamberlains were ordered to surrender their wealth, and their selves . . ."

The Sanchexes once served humanity as warriors. But when the Great Peace was established, every enemy vanquished, they turned themselves into marvelous, almost fearless engineers. Manipulating mayhem, they used to tame old suns and build new ones. They learned how to rob energy from pulsars and black holes, enriching themselves along the way. More than any other Family, the Sanchexes poured their wealth and reputation into the Core, making it habitable. And after all that good work, a few Sanchexes helped destroy everything, which made all of them guilty. Beyond redemption.

"Even still," Xo spouted, "they weren't the guiltiest of the guilty."

The refugee boy sat between his parents, eating because it was polite to eat, but his attention fixed firmly on the Nuyen.

"The worst ones were the Chamberlains. Naturally." Even if Ord was somewhere close, he wouldn't react to that simple taunt. But there was a script to follow, and other Nuyens were judging Xo's technique. "The Chamberlains weren't natural fighters," he added. "No, they were worse than that. They were intellectuals, colder than the emptiest space and without a single heart to their name."

The boy nodded soberly, apparently believing the propaganda.

Using private channels, Xo offered more elaborate arguments—highly reasoned and much-practiced monologues that were supposed to create doubt in a young Chamberlain. That was the routine. Almost certainly, Ord wasn't here. But then again, Ord could be anywhere. Everywhere.

He could have arrived last night, undetected, and by chance, Xo was delivering the opening salvos of his well-planned assault.

The boy lifted his tail and hands again, and after saying, "Sir," with the proper respect, he asked, "What can you tell me about this wonderful room, sir?"

More than a kilometer long, with a towering triangular ceiling fashioned from polished basalt, this was once a sacred place for the Sanchexes. But after laying empty for so long, it felt sad, cold despite the warm air, and forgotten.

Xo waited for a half-moment, letting his audience look about.

Then the boy answered his own question. "It was their dining hall, wasn't it? This was where the Sanchexes held their ceremonial feasts."

"Yes. That's what it was."

The blue-black eyes smiled. Turning to his mother, the boy said, "When they finished eating—meat or cold plasmas or whatever—they would clear away the furniture and hold contests. They would fight each other, mostly."

The woman swished her tail nervously. "How do you know that, dear?"
"It's in the histories," he replied. "I read it somewhere."

Xo accessed every word that the boy had read since immigrating, then consumed the entire library salvaged from the starship. Buried in that mass of information was a single article that mentioned that historic curiosity.

Faintly disgusted, the mother looked at the Nuyen and asked, "Is that true?"

But again, the boy answered first. "Grown-ups took the shape of giant animals, real or not, and they would stand at opposite ends of the room, then run at each other." He pointed calmly at an odd little doorway, now sealed. "That's where the blood was drained away. Fighters would weigh their fluids afterward, and the winner was whomever lost the least of himself, or herself."

Outwardly calm, Xo kept monitoring the boy.

With an impressed voice, he told everyone, "It's basically all true."

The boy gave a little nod, happy with himself.

Those last details weren't included in the article. But the boy could have overheard someone talking. Unlikely as it sounded, that was a much more reasonable explanation than having Ord himself sitting at the table, baiting him with this slender clue.

An impressed hush had fallen over the group. Every diamond knife and shield—Sanchex utensils authentic to their pyramid embossing—was laid neatly on the remains of their lunches. Keeping to the topic, Xo confessed, "This may have been the most aggressive Family. By temperament and by training, the people who were born in this house were capable of the most astonishing violence."

The boy was staring through him, his face suddenly flat. Empty.

"If the Core hadn't exploded," Xo continued, "there still might have come a day when we would have disarmed and disarmed the Sanchexes. For everyone's safety, including their own."

Most of the guests nodded amiably.

It was another who took offense. Swimming the length of the room, unseen, she came as a sudden chill of the air and a vague electric sensation slithering beneath Xo's false skin. Only he could hear her whispering into his deepest, most private ears.

"Fuck you," said the familiar voice, followed by a long, dry laugh.

Xo was afraid. But more than that, he was amused, thinking how the Sanchexes weren't like Chamberlains: They rose reliably to every little taunt.

"Hello, Ravleen," he said with his own laughing whisper.

"Fuck you," she repeated. Then as she pulled away, retreating into the depths of the pyramid, she said, "Get your assholes out of here! I want to be alone!"

4

He won't send the whole of himself . . .

What we imagine is that we will first see just the affable tip of his tiniest finger . . . which, nonetheless, should be an awesome sight . . .

—Nuyen memo, classified

What with the compression of time after so much racing through space, it felt to Ord as if he hadn't been away from home for more than a long afternoon.

Or a few decades, at most.

Yet something else inside him, persistent and bittersweet, felt the press of the ages. These beautiful mansions had stood empty on these sculpted peaks for a very long time, and the splendid forests and meadows had grown wild, and every extraordinary city on the Earth had swollen until there was only one megapolis encircling the globe . . . and not only had Ord been gone for a long time, but in some ways, he had never been to this place before.

Perched on a comfortable seat inside the luxurious Family transport, he studied his surroundings with a thousand heightened senses. For the last seven months, he had done little else. And likewise, the Earth had never stopped studying him. He could feel every stare, every subtle touch, and coursing through the air were the whispered questions:

"Is he the one?"

"Or a decoy?"

"Or a lesser criminal, maybe?

"Or nobody . . . perhaps . . . ?"

And then, as always:

"But if it is Ord, when how where do we act . . . ?"

Even in its heyday, the gray-gold Sanchex pyramid had a foreboding, almost angry appearance. As it fell away behind him, Ord gratefully turned his eyes by the dozens, more and more of him watching the Chamberlain mansion—an enormous cylinder of tailored white coral laid over pink granite bones. And again, Ord had that divided impression of never having left, and seeing nothing that was truly familiar.

"Are you enjoying yourself?" a voice inquired.

Xo's voice.

Looking up, Ord conjured a smile and flipped his tail in an amiable fashion, answering the question with gestures, then saying, "This is very fun. Sir."

The Nuyen dropped to his knees, touching a shoulder while a private voice remarked, "I know it's you, Ord. I know."

It felt like an ancient trick. A trick tried often and one that had never worked.

With his public voice, the boy said, "I don't blame the Nuyens for what happened. To my home world, I mean. My parents have explained it—"

"We tried to help you," Xo interjected.

"Your brother tried his very best. Absolutely." It had been an enormous public relations disaster, not to mention a tragedy. Anti-Family forces had outmaneuvered a young Nuyen, and nearly a billion civilians died in the crossfire. "I'm just sorry that I can't visit your home today," Ord claimed. "I would so much want to thank each of you personally"

Xo nodded. He was wearing a smooth face and the body of a young adult and the bright cheerful eyes of an imbecile. It was all decoration, all a ruse. No one else inside the transport suspected that this wasn't one of the Nuyens' young children. He was a full adult, modified and enlarged, and for most of humanity, indecipherable.

This wasn't a fearful and simple and clumsy Nuyen, and that was another sign—perhaps the most powerful yet—that Ord didn't belong in this place.

With his private voice, Xo promised, "We absolutely don't want to harm you. We only want to help you, Ord."

Then came a seductive argument—intense and focused, full of promises of forgiveness for every crime, known and unknown—and while Xo's secret voices begged with him to confess and surrender, his public voice was saying, "On the first day of the year, my Family opens its doors to the Earth. It's a show of friendship. Anyone can join us through his universal window. And if you come, I'll give you a tour of my house."

Ord said nothing.

With every voice, Xo said, "Think about it then," and he rose, then retreated, nothing about him showing the slightest concern.

PRIDE AND SACRIFICE.

The words had been cut into the granite above the doorway, and as people filed inside, listening more to one another than their guide, Ord couldn't help but leap up, touching the dense pink rock with his finger-tips.

That was his habit, his little ritual.

Xo saw the gesture, and froze. Other Nuyens triggered a silent alarm that engulfed the Earth, then jumped across the solar system, alerting the appropriate AIs and humans. Before the little group of sightseers could reach the first stair, a multitude of defensive networks were begging for information and instructions. Ord watched the careful panic, and in the same moment, he concentrated on closer, more immediate hazards.

The mansion was a trap. Or more accurately, it was a series of ingenious, closely nested and independent traps.

Antimatter mines lay beneath the stairs and behind solid walls. Null-field generators waited to ensnare anyone foolish enough to stumble too close. Straight overhead, inside Ord's old bedroom, an AI assassin waited to inject its victim with quantumware toxins and assorted eschers that would muddle the most sophisticated mind. But perhaps the most dangerous enemy stood behind him, pressing lightly at the small of his back, the dry, smooth, and worried voice saying, "Please don't. Don't touch the emblems, son."

With a boy's voice, Ord said, "I'm sorry, Sir."

Each guest stood on his own stair, and they were being lifted, spiraling their way up through the famous structure.

With a stronger voice, Xo asked, "What would you like to see first?"

"The penthouse, please." The boy smiled at his adoptive parents. "I want to see where Alice lived after she came home again."

The Nuyen smiled and said, "Naturally."

Ord could feel Xo's invisible bulk. Family members were given more and more talents as they grew, and Xo was a respectable age. But he was oddly transformed. Ord smelled weird abilities laid over his ape bones. Dark matter and profound energies clung to him, reaching for kilometers in every direction. There were eschers and quantumware toxins as well as charismatic talents at least as powerful as Alice's old systems. And woven into everything were talents that Ord couldn't quite weigh. Yet.

An enormous quantity of human genius had spent the millennia doing nothing but making ready for Ord's return.

Ord always nourished a healthy sense of fear. But glancing over his shoulder, a genuine terror took hold. What if he had come all this way for

nothing? Instead of answers, what if he was captured? Dismembered? Or worse?

How could he help rebuild the Great Peace if he were dead?

Unless that's what Alice wanted to have happen. *My death saves the galaxy, somehow.* It was a seductive, fatalistic notion that found a ready home inside him. It spread through him like an explosion, then he just as abruptly realized where that crippling notion had come from . . . and he threw it aside. . . .

Xo.

For an instant, Ord considered fleeing.

But that was another one of Xo's tricks. Ord crushed the idea, telling himself that he wouldn't leave, that he would see this through, whatever happened. . . .

Xo sensed a change. "Yes?"

"In the histories," said the boy, "there's a Nuyen with your name. Xo was a friend of the Chamberlains' baby."

"Ord," said Xo. "Which, by coincidence, is very similar to your name."

"Is it?" He almost laughed. "Alice became Ord's friend."

"She manipulated him, you mean. She practically enslaved him." Xo said the words with every mouth, in a great chorus.

"Are you the same Xo?"

"I am. Yes."

People were startled. Unnerved. The boy's father bristled, then with a wounded tone said, "Sir," twice. "Sir. I don't understand. I was led to believe that only youngsters served as tour guides—"

Ord explained, "He thinks that I'm dangerous, Father."

The parents clung to one another, horrified by the idea.

"But I'm not dangerous. Not even a little." He stared at his childhood friend, saying, "There was another Baby. A Sanchez. What was her name?"

"You know," the Nuyen replied.

"So where's Ravleen? Giving tours, like you do?"

Silence.

They had already risen through most of the mansion. The cylindrical walls were covered with an elaborate, ever-changing mural. Originally, these projected images showed historic moments of glory, the Chamberlains always front and center. But old successes had been replaced by stark images: Living worlds were turned to molten iron and steam; panicked faces evaporated in storms of hard radiation; a trillion refugees fought for berths on scarce, overcrowded starships, sometimes with nothing but fingernails and teeth.

"The Chamberlain legacy." Their guide's voice was booming. "This is why they were disbanded. This is why they earned our scorn. And this is why my Family—those who would never hurt you—are disarming and neutralizing the outlaw Chamberlains."

The razored sense of tension was infectious.

Staring at the nightmarish images, the boy's eyes changed in subtle ways, pulling the face with them.

Suddenly he was intrigued by the carnage. Awestruck.

"Alice's final days of freedom were spent in here," Xo declared. Then he paused, openly glaring at the boy.

"Mama?" the boy squeaked.

With hands and tails, then their bodies, his parents surrounded him, pretending they could actually protect him.

The stairs suddenly deposited everyone on the landing, standing before a thick crystal door that shouldn't have been closed.

Xo whispered something too soft to be understood.

"Where's the penthouse?" asked the boy. "I want to see the penthouse!"

Xo said, "No."

He said, "We have to leave now. I'm sorry."

Then the boy gave the door a little kick, blubbering, "Why? I want to see it! I want to see where Alice was. . . !"

Ord was standing on the opposite side of the door, watching, carefully cutting the final tethers to his camouflage. He had woven that child from ordinary matter, then convinced the childless couple that he was theirs, and genuine. And that's how they regarded him now, still trying to shield him, riding the descending stairs with the other dumbfounded guests.

Only the Nuyen lingered.

With a mixture of terror and awe, Xo touched the crystal door softly, using a thousand hands.

"Why did you have to come back here?" he asked. "When you could be anywhere, doing anything, why did you have to pick on little me. . . ?"

5

The Chamberlain mansion has been carefully inspected for residual dark matter machines, subatomic keys and graffiti-encrusted motes of dust. Every appropriate authority has been invited to participate, at our discretion, and new inspections are carried out at irregular intervals, using both the newest and most proven means.

Naturally, the estate grounds are shown the same thorough respect.

For the moment, more elaborate measures, including the total dismantling of every artifact, have been shelved.

We don't need to make ourselves look any more desperate here. . . .

—Nuyen memo, classified

"What's your name, brother?"

"Keep still. For a few moments, please."

But Avram couldn't just lie there. He tried to sit up with a half-formed body, and with blue eyes staring, asked, "What is this place?"

"You don't recognize it?"

The newborn face turned left, then right. Then, with a sigh, he faced forward again. "I don't. I'm sorry."

"No reason to be," Ord replied. "I just hoped you knew more than me."

In better days, the penthouse would have been fitted to make visiting Chamberlains comfortable. But instead of luxurious furniture or elaborate energy fields, Ord had created a starless night sky beneath which stood a string of beds—wooden frames covered with dense alien symbols and filled with a meter of soft gray dust. Inside each bed was a human skeleton, archaic in form, the elegant bones vanishing behind an assortment of bright young organs and new flesh, the toothy white skulls transformed into familiar, wide-eyed faces.

"This talent doesn't come equipped with a history," Ord confessed. "I can work it, but I don't know why things look the way they do."

The brothers had identical faces, sharp and pale and gently handsome, their strawberry hair unkempt and their sky-blue eyes projecting the same sense of wary amazement.

"You saved my life," said Avram.

"You're welcome."

A deep, grateful breath. "Are you the Baby?"

"Ord."

Avram closed his eyes. "The Baby."

Bodies began moving inside each of the adjacent beds. Hands and bare feet flinched, then everyone tried to sit up, lungs blowing the healing dust high into the dry, dark air.

To each of his patients, Ord said, "Relax. Please."

"This is one of Alice's talents," said Avram. "Am I right?"

He gave a little nod.

"It must be awful . . . being transformed before your time. . . ."

Nearly two dozen people were being reborn. There was a Papago and a Lee and two Ussens, and so on. Each belonged to a disbanded Family. Each asked the same questions, then listened to Ord's gentle voice while watching his face float above them.

"I know about that Papago," said Avram, pointing to his neighbor. "Someone like her vanished while awaiting trial."

"Buteo wouldn't have gotten a fair hearing," Ord explained. "What else could I do?"

"My jailers were terrified of you. They seemed convinced that you were coming for me next, which was why they hurried to convict."

"Your trial smelled, too."

"You were watching over me?"

"When I could."

Avram took a breath, for courage. "But if judge and jury had been fair . . . ?"

Silence.

Avram laughed, bitterness bleeding into resignation. "Is this how you live now? Charging around the Milky Way, righting wrongs against the Families . . . ?"

"I've also put an end to a dozen major wars," said Ord. "Plus hundreds of little fights. And I've reterraformed mutilated worlds. And I've rescued overloaded starships. And when I can, I've tried to convince people to support the Great Peace—"

"Well," said his brother, "it's good to keep busy."

Without warning, Ord was the Baby again.

"It's a big galaxy," his older brother warned. "How many places can you be at once?"

Silence.

"Even with Alice's talents . . . what? Two or four. Maybe ten. But not everywhere." Avram threw his naked legs out of the bed, then added, "Alice was spectacular, but finite. The same as you, I'm guessing."

Ord didn't reply.

"Is that why she gave you these gifts? So you can run from system to system, putting out proverbial fires—?"

"I don't know," Ord conceded. "I'm never been sure what she intends for me."

Avram blinked, unable to contain his surprise. Then, after a long pause, he made himself ask, "What do you intend for me?"

"If you're willing, I'd like your help."

"Of course." Avram looked between his feet, judging the distance to the dusty ground. "How long has it been since you saved me?"

Ord told him.

And his brother winced, his face tightening as it lifted. A fire shone in the dark of his eyes. "Where are we? Exactly."

"Earth."

There was no reaction.

"Inside our old house, as it happens."

For a very long while, Avram sat motionless. Then his face softened, and with the beginnings of a smile, he said, "So you've come home to rescue Alice."

Ord said, "No."

His brother stubbornly ignored the answer. "What you were doing before . . . saving each of us like you did . . . you were practicing for today, weren't you . . . ?"

"No," Ord told him again.

Then he added, "Saving you was easy. Much too easy to make it any kind of practice, I'm afraid."

Once Ord had stripped the mansion of its traps and lesser terrors, he invited his reborn companions to wander at will, and if possible, grow used to their circumstances. In their own way, each was grateful, but they were obviously worried about the future. Buteo, a tiny walnut-colored woman, reported activity in the nearby forest. "There's a hundred fancy uniforms with people set inside them," she said. "And either they're extraordinarily stupid, or those uniforms want me to see them watching the house."

Ord saw quite a lot more: The local districts had been evacuated. Elite military units were rushing from the ends of the solar system. The Earth's artificial moon was being brought close to the Earth. But most alarming were the sophisticated energy barriers—invisible curtains shrouding the estate, designed to withstand nuclear detonations, tetrawatt discharges, and any sudden retreats by the criminals trapped inside.

There was no worse place for war than the overcrowded Earth.

Some believed that Ord needed to be reminded of the obvious. "You should just go get Alice now," said one of the Ussens. "Or better, why didn't you slip in and out of her cell when you first got here?"

"Because I wasn't strong enough," he explained. "And I'm still too weak, frankly. Most of my talents—"

"Alice's talents."

"Are elsewhere. Waiting." Ord gestured in a random direction. "If I'd brought everything, I would have lost any chance of surprise."

"Surprise," the Ussen echoed, choking out a laugh.

"Besides," said the Baby, "being small has blessings. I still look harmless. I'm not forcing anyone to panic quite yet."

Avram asked the obvious. "But what if they keep you separated from your other talents?"

"They won't," Ord promised, showing them nothing but confidence.

The Ussens grumbled, but said nothing.

Buteo showed a half-grin.

"Fine," said Avram. "We're here with you. We owe you a debt, and you need our help, you say. So what are we suppose to accomplish?"

"I can modify you." Ord gave them a wide smile. "I'll make it so you can study my surveillance feeds. I want your impressions about what's happening. Your best hunches, and your worst."

"Wouldn't you do the better job?" asked Buteo.

Ord shook his head.

"I'm just the Baby. Remember?" Then he gave them a soft, self-deprecating laugh, wondering if they could see just how lonely he was. . . .

When Ord was still a child—when the authorities had moved to arrest Alice—she wasn't found in the spacious penthouse. She was waiting for her captors inside a tiny, nearly anonymous bedroom deep in the man-

sion's bones. It was the same room where she had lived as the Chamberlain baby, and wrapped up in thick nostalgia, she had bided her time by watching scenes from those ancient days.

The room's furnishings were exactly as Alice had left them, complete to the small, old-style universal window. The only structural change was the transparent wall set between the room and the adjacent hallway. This was where the daily tours ended. Guests would pause and stare, and their Nuyen guides would finally, mercifully grow quiet, allowing each person the freedom to consider the red-haired monster who had taken refuge here, and how very much she meant to their lives.

Ord passed gently through the wall, influencing nothing.

The window showed the present: Alice alone inside her prison cell, dressed in a plain white prison smock, nothing substantial changed for millennia. Ord watched as she paced from toilet to door, every step made slowly and carefully, three steps required to cross her universe . . . and she turned with a dancer's unconscious grace, retracing her steps so precisely that Ord could see where the hyperrock floor had slumped in four places, worn down by the naked balls of her feet.

The cell and this old bedroom were the same size.

Ord wasn't the first guest to note the irony.

With a corporeal hand, he touched the warm electric image of the face. Did she sense that he was here? Did Alice retain those kinds of powers? It would be lovely if she could simply come up and visit him for a moment, like she had done once before. Things would come easily and quickly. But if it were possible, the prisoner never gave him a sign.

With every other hand, Ord searched the room. This was where Alice would leave him instructions. It would be like her. A motile scrap of flesh; a whisper of refined dark matter. Either could have slinked about for thousands of years, evading detection, waiting for his touch to unfold itself, then explaining exactly why she had selected him, or damned him, into becoming her successor.

But there were no keys, or clues. Or anything else worthwhile.

The one possible exception was set on one of the crystal shelves above the narrow bed. Like any Chamberlain, Alice had been a rabid collector; odd gems and favorite holos were mixed together with fossils of every age and origin. One fossil showed a human handprint set in yellow mudstone. In a glance, Ord knew its age and its curious origin: It was a female Chamberlain's hand, and the stone beneath was ten million years old. Alice had created it. On some alien world—a single taste gave Ord twenty candidates—his newly grown sister had pressed her right hand into a streambed. Then she had buried her mark, and several million years later, she had dug it up again. Cooked to stone, and in a rugged fashion, lovely.

Ord reached for the handprint, almost by reflex.

Then, he hesitated.

The trap was almost perfectly disguised, its elegant trigger married to the young rock, waiting patiently for his hand. A camouflaged relay connected it to a single globule of molten, magnetized antiiron set deep underground. The weapon was far too small to hurt Ord, even at close range, and he wouldn't have noticed it if he hadn't been searching for it. The globule was inside a null-chamber set beneath that very bored woman, and it had probably always been there, her pacing back and forth above it, oblivious to any danger.

Ord's first analysis taught him about the trigger and the relay.

And the next ten analyses showed him nothing new.

There was a temptation to put his hand in hers. For a slippery, seductive moment, Ord wondered if that was why he had come here. Not to ask advice, but to instead do one more good thing for a needy Chamberlain.

He slowly, slowly withdrew his corporeal hand.

Then he pulled it through his hair, his scalp more than a little damp, the perspiration tasting of oceans and fear.

6

Ravleen is nothing but polite. We appreciate the quality in anyone, but particularly in her. And that even though we're certain that she's only pretending to have manners.

So that our polite friend could better understand herself, we took her into the wilderness.

We own several hundred sunless Earth-class worlds between Sol and its nearer neighbors. They're investments for the day when our solar system is full. One of the worlds was terraformed in preparation for Ravleen. At our insistence, she examined it in detail, then very politely asked permission to play.

For the next three hours, Ravleen used her new talents—first in small doses, then in larger, more expert fusillades. And afterward, with scrupulous care, she thanked each of us for the opportunity to learn.

"When he does come," she said, more than once, "I'll do the same to him."

We manacled each of her hands afterward, then brought her home again. And to help recoup our expenses, we sold portions of that world's exposed core . . . its metals and rare earths . . . at a very considerable profit. . . .

—Nuyen memo, classified

Xo would never admit it, but he felt a genuine pity for Ravleen.

When the Sanchezes were disbanded, Ravleen was still the Baby, still

living at home and largely unmodified. Ordinary life wouldn't have been a wrenching change for her. Not like it was for her older, more talented siblings. Yet to be ordinary wasn't an option. Ord had just vanished, taking Alice's talents with him. The good Families were panicking. Even before the Sanchexes could officially surrender, a delegation of high-ranking Nuyens was dispatched, sweeping into the pyramid as if they owned it, pushing past hundreds of embittered souls. Xo wasn't there, and for good reasons, no visual record was made. But the moment had acquired a legendary status inside his Family. From the stories told, he could imagine his brothers and sisters moving en masse. He could taste the vivid, bilious tensions swirling around them. And the tensions only grew when they reached the young woman's quarters, entering after a cursory knock, and with a single booming voice, announcing, "We have come to ask for your help."

Ravleen was a beautiful woman. Black hair and arching black eyes gave her a feral quality, and in those days she would amplify her looks with infections of benign, radiant bacteria. The Nuyens' eternal curse was to feel lust for the Sanchexes, and fear, and despite the rank and power of her guests, Ravleen knew how to toy with those emotions. She sat on her bed, wearing only a sablecat robe, and using a single finger, she opened the robe, calmly fondling her left breast as she smiled, coldly amused, pointing out to them:

"You don't sound as if you're asking."

The Nuyens laughed. They sounded like men and women in perfect control, their little worries buried deep.

"Let me guess," Ravleen continued. "This is about Ord, isn't it? You think I can help you just because I grew up with him. Right?"

Sober faces nodded.

Every voice said, "Naturally."

She stood suddenly, letting her robe slip and tumble to the floor. Brothers and sisters stared at her legs, at the strong full curve of her ass, and at that famous smile, winsome and predatory in the same bewitching moment.

"I've heard Xo's helping you." Telling it, she admitted to knowing at least one minor secret. "You're grooming that turd. Feeding him advanced talents. Intellects. Propagandas. And he'll be invulnerable to attack—"

"Any reasonable attack, yes."

Ravleen scratched herself in one place, then another. Then she inquired, "So am I getting the same deal?"

They told her, "No."

Then they laughed, perhaps trying too hard to seem in command.

"You'll be given talents, but of a narrow sort," they warned. Then they reminded her, "You're just a Sanchex. You'll be lucky to have one talent. Since, according to the new laws, we aren't entitled to give you shit."

She said nothing for a long while, black eyes fixed on her sablecat robe, watching as it crawled toward its burrow-closet.

Then she took a deep breath, and said, "All right. What do I get?"

The package included a Xo-type invulnerability. They explained that and her other powers, then cautioned there would be no added intellects, except for the instincts needed to control the talents. In essence, Ravleen would be a functioning moron, incapable of million-tongue language skills or nonlinear modeling or even the cherished ability to use private, intrafamily channels.

"That should keep me under control," she observed.

The highest-ranking Nuyen agreed, then said, "And we'll take other precautions. You'll wear restraints until we choose to remove them. And even when your manacles aren't in place, implants will ride inside your mind. Some will coax you into hating the Chamberlains, particularly Ord—"

"As if I need help," she interrupted.

"And the other implants will be waiting for a word from us. Waiting to kill your very tiny, very fragile mind. . . !"

The young woman passed from a shameless tease to simply naked. Exposed, and painfully helpless.

She caught her robe and put it on again.

"Xo's job is to reason with the boy," said the Nuyens, "and if he doesn't succeed—"

"I get to kill him."

No one responded.

Quietly and soberly, Ravleen promised her audience, "I'll do this thing for me. Not for you."

Every Nuyen broke into a huge and honest smile.

"I could live a long time," their new ally ventured, "waiting for a little vengeance."

It was early evening when two figures slipped out of the forest. They wore archaic bodies and the simple magenta robes common to diplomats, and they moved with a steady purpose, their talents following after them—Xo's intellects meant to appeal to the boy-god's better nature, and Ravleen's weapons still in their manacles, but straining, eager for the chance to attack.

As always, Xo felt sorry for his extraordinary companion. And as always, he pushed his sorrow and pity off into other, more profitable directions.

With a steady, practiced voice, he said, "Ord? Isn't it time to talk?"

Nothing happened.

They paused at the mansion's main entrance. Xo made no attempt to look inside. He didn't believe that he could see much, and besides, it was

important to appear polite. To seem patient. To be exactly the kind of person Ord would accept, and with whom he could agree on terms.

Ravleen enjoyed a different attitude. Storming up to the coral door, she gave it a kick with her bare foot. "You might as well talk to us," she sang, "because we're damn well not leaving!"

Nothing.

She groaned and made a fist, taking aim.

Xo grabbed her by the wrist.

Even manacled, she was full of white-hot energies. But she didn't resist him, relaxing suddenly, a strange little smile hiding in her eyes and the expression telling the world, "I know exactly what I'm doing."

From the forest, from a dozen hiding places, came a chorus of wails.

In better days, the Chamberlains kept bear-dogs as pets. When their estate was abandoned, the pack went wild, and these were their descendants. Xo made sure of it. But as he studied the animals, in that instant of split attentions, Ord emerged, coming from no particular direction to stand before them with his hands open, his palms up.

"It's nice to have old friends drop by," he said.

To Ravleen, he said, "You were inside the pyramid. Weren't you?" And he began to laugh, admitting, "I felt something. An incandescent rage. And I thought: If they're using Xo, they must be using Ravleen, too. In service of the Nuyens. . . !"

Energies surged, diminished.

Then the beautiful Sanchex face was smiling, the eyes filled with mischief, and she let her tongue play along her top lip, then slide back against its mate.

Xo spoke, asking and begging and cajoling Ord to open up a dialogue.

The Chamberlain responded with a steely glance, then gave fair warning. "They made a bad choice. I've never liked you."

"You don't know me," Xo growled. Then, "What do you think? That you're the only one of us who's better than he used to be?"

Silence.

With his simplest mouth, Xo said, "We have to talk. Without Ravleen."

They were somewhere else. They were suddenly inside the penthouse, and others were watching. Xo examined the silent associates. And Ord touched him, a firm hand on the shoulder as a matching voice told him, "Try to convince me. And then, when it's my turn, I'll try to convince you."

Xo spoke, disgorging a hundred practiced speeches and as many impromptu pleadings. He sang about the great purpose of the Families. He roared knowledgeably about service and sacrifice, moral principles and immoral pitfalls. He gave cold technical estimates of Ord's position and the Earth's weaponry, showing that the situation was hopeless. And he knitted together words of understanding and compassion that proved how even the hopeless could, when the time came, expect mercy.

Then, on a whim, Xo pulled live feeds from across the solar system:

A new mother on Pluto; a dozen winged humans perched on one of Saturn's cloud continents; an Amish community on Ceres; an ancient, revered poet floating on Mars' northern sea. Each of them was visible, and terrified. They were concentrating on the news feeds. They were praying, each in his own fashion. Praying that this visitor—this mutilated Chamberlain—wouldn't make a tragic blunder, obliterating all of them.

The final view was from a surveillance AI. A refugee family, recently arrived on the Earth, sat holding hands, their tails tied into a communal knot. The father and mother were more depressed than ever, obviously waiting to die, while their son kept smiling, chattering on and on about the astonishing coincidence . . . that they were just inside the mansion, and wasn't it something . . . they must have just missed the arrival of that crazy Chamberlain. . . !

Crazy or not, Ord was moved.

Was weakened.

With empathic talents proven in the lab and in field tests, Xo could sense his opponent's resolve beginning to falter, if only a little—

Then they suddenly were outside again, standing in the same positions. Barely a moment had passed. Ravleen wasn't even aware of their absence.

"Fair warning!" she wailed. "I'm going to butcher you and fuck every one of your body parts, you fucking shit!"

Ord stared at her.

Out of curiosity, or some misguided sense of compassion, he opened his right hand and offered it to Ravleen.

She grabbed the hand and shoved it into her mouth and neatly bit off two fingers, the sharp crunch of the bones lingering. Then she spat the fingers to the ground and stomped on them, cursing without breath or the smallest pause.

Later, replaying events for his siblings, Xo defended Ravleen. The criminal wouldn't have surrendered. He felt sure. And Ravleen was just being herself, which probably did some good, lending the moment a sense of enormous danger.

If there was blame, it was his. Xo had spent his life preparing, and the magic hadn't worked, and he seriously doubted he would have another chance.

The eldest Nuyen touched him lightly, fondly.

A cool feminine voice flowed over him, saying, "When Ravleen's tantrum was finished, what did Ord say?"

"I only came here to talk to Alice," Xo replied, mimicking the voice and the pale boyish face. "Bring her here and let me see her, in private. Then I'll leave again. I won't hurt anyone, and I promise, I won't take her with me."

The Nuyens fell silent, contemplating those simple words.

Allowing himself a dose of self-pity, Xo whispered, "I failed my Family. And my species. I'm sorry that I let you down—"

"But you didn't," the ancient woman replied. Not to comfort, just to inform. "Honestly, we never expected your success."

No?

Then she touched him again, saying, "Again, please. Tell us about the people you saw with him in the penthouse—"

7

Measure the soul exactly, and it becomes yours.

—*a Nuyen saying*

The offer was delivered by Alice herself.

Sitting alone in her cell, propped on the foot of her narrow bed, she read the words projected on her normally blank window with a steady, colorless voice. "To anyone with my brother Ord," she read, "we will grant you a total amnesty. Leave the Chamberlain property before dawn, and every crime will be forgotten. Your past will be forgiven. And we will grant you every freedom and responsibility deserved by citizens of your mother world."

She paused, then said, "Sincerely, the Earth's Council."

Then Alice became puzzled, staring up at the omniscient window, and after a long moment, whispering, "Ord?"

Then, "Why did you come back here? Why—?"

The feed evaporated into blackness.

The others wanted to speak, almost shouting, claiming that the image wasn't real and the offer was just as bogus. But Ord admitted, "She was authentic. And so is their offer." He had analyzed every communication and every careless word uttered by ten thousand high-placed souls, and though he had doubts, not one of them had a backbone.

Seeing his resignation, the others began to adjust their opinions, repeating the word, "Amnesty," with a mixture of gentle horror and tentative hope.

Buteo was first to ask, "So what happens at dawn?"

"They assault our position," Ord replied.

There was a long silence.

In the faces, particularly in the wide thoughtful eyes, he could see the others replaying Xo's arguments. Pride, they thought. And sacrifice. Ord had saved their lives, but their Families and a sense of duty had given them life in the first place, and delivered their purpose. They said as much with glances, with half-sighs, and with a persistent, embarrassed

quiet that was finally shattered when Ord smiled wistfully, reminding them, "You're not prisoners. If you wish, leave. That's absolutely what I expect from you."

Through the night, one by one, people made their apologies and slipped outside, out into the grasp of the Nuyens.

Only Buteo and Avram remained at sunrise.

Ord never asked for their reasons, but both offered them.

"Nuyens are winning too much, and too easily," was the Papago's excuse, offering a flirtatious little smile.

His older brother simply shrugged his shoulders, asking, "What can I do? Chamberlains have to help each other."

Then he smiled, and when Ord smiled back at him, he added:

"Eons of habit. They can't vanish in one dangerous little night."

The bear-dogs were neither bears or dogs, but instead had been built from an assortment of popular species, ancient as well as recent. Into that rich genetic stew mutations were gathered from over a thousand centuries of living in the wild. Possessing a modest, pragmatic intelligence, each pack had its oral history reaching back to the times of the Chamberlains. They weren't fools. They realized something had gone horribly wrong in their world. The hot night air had crackled with strange energies, and phantoms had drifted through them without offering explanations or apologies. The disruptions only grew worse at day-break.

The morning chants were interrupted twice by sharp, inexplicable sounds that came from everywhere. The enchanted moon was suddenly close, almost filling the brilliant blue sky. Then a spirit army began its charge up through the mountain, rising toward the summit and the holy mansion. At least one old bitch priestess sensed their bloody purpose, the bear-dogs' world about to change.

Quietly but firmly, she offered thanks to the mountain for giving them this beautiful home and ample food—every priestess made the same morning prayer—and then she stumbled over her own tongue, trying to find the suitable words for the inevitable.

Today, they would die.

She felt certain.

But before she could warn the others, a Chamberlain materialized beside each of them. They had never seen a Chamberlain before, but they knew him immediately. He scratched behind their ears, knowing exactly what every bear-dog liked, and he smiled at them, telling them, "If you come with me, I'll keep you safe."

The priestess had her little doubts.

But she grunted her compliance just the same, and the Chamberlain touched them in a different way . . . and an instant later, the forest dis-

solved into plasmas, and the ancient mountain turned to magma and ash and a scalding white pillar of dirty light. . . .

The barrage of shaped plasmas lasted four seconds.

In its wake, the mansion was left blackened but intact, held together by Ord's own hands. And with the mountain collapsed into a cherry-red lake, its deepest foundations lay exposed, making the structure taller, and if possible, even more imposing.

The army attacked with a wild fury, accomplishing nothing.

But a tiny unit masquerading as the butt end of a kinetic charge managed to slip through Ord's defenses. Then with a Nuyen general at the lead, the invaders rose swiftly along fissures and a forgotten conduit, materializing inside the central staircase not ten meters below the penthouse.

The murals were gone, replaced with an infinite grayness and a powerful, unnerving cold.

Extinction, perfectly rendered.

The Nuyen attacked the crystal door, then pulled back as it dissolved, becoming a pocket of stale air with Ord standing at its center.

His face was miserable, his eyes pale and tired, and with a voice that matched the face, he said, "I want to talk to Alice. Just that. Then I'll repair all the damage, and I'll leave. I promise you."

The Nuyen shook what passed for a head, then drifted aside.

Ravleen stood waiting, grinning in a cheerless, expectant fashion. A few of her hands had been freed for the occasion. She reached with them, engulfing her enemy, ripping away his talents and senses, and strange dark-matter meats, aiming for what lay at the center.

Ord winced and shut his eyes.

Standing on a long green lawn, he found himself wearing nothing but a boy's half-grown and very naked body. The grass was short and soft and overly perfumed, and the mansion was white again, rooted into the old mountaintop. A pack of tame bear-dogs were lying nearby, drinking in the blue skies and the sun. Ord stood still exactly long enough to believe in the place. Then a hand grabbed his shoulder and spun him, and a second hand—hard as basalt—drove itself into his astonished face.

Ord lay on his back, his face bloodied.

The Sanchez towered over him, naked and unexpectedly alluring. With a practiced, almost surgical precision, she placed a long bare foot to his neck, then pressed hard enough to make the mountain's bones groan beneath them.

On another day, Ord would have already lost the fight.

Ravleen would have given him a thorough, expert beating, and he would have endured it, knowing that she could never inflict permanent harm.

But this Ord grabbed an ankle and yanked her off her feet.

Then he jumped up and set his foot against her neck, letting her curse and lash at him, then in her rage biting through her own tongue and spitting it at him.

The air gave a supersonic crack as the tongue passed.

New hands were unmanacled. But instead of throwing him off, she grabbed Ord and pulled him close, an irresistible strength leaving him lying on top of her, chest to chest, his left ear pressed against her tongueless mouth.

This wasn't Ravleen. This was a monster, nothing but a scorching rage and a shred of embittered, poisoned intellect that gave the rage its direction.

"More talents," she begged with other mouths. "Let me kill him, please. Please."

"No," said a Nuyen's calculating voice. "No."

Xo was kneeling on the sweet grass, and with a genuine pain, he told Ord, "You know, you really can't win this thing."

Part of Ord wanted to believe him. Defeat meant peace and a kind of freedom, all of his massive responsibilities taken from him.

"You're simply too weak," Xo informed him.

Ord said nothing.

The Nuyen's talents were at work. Oily and cold, they slipped inside him and spoke with a pure confidence, telling his soul, "If you surrender, at this moment, nobody needs to die. Including you."

"Shut up!" Ravleen screamed. She laid beneath Ord as if he was her lover, and her face colored and twisted, the eyes throwing fire at Xo. "Just please give me another fucking hand, and shut up!"

For an instant, her grip was stronger.

Slightly.

Then weakened again; Ord barely noticed.

Unnoticed, the bear-dogs had made a circle around them. Then one of the beasts became Avram, and he grabbed Xo and pulled him away. Another was Buteo, and she calmly and expertly took hold of the Sanchez monster, peeling back hands until Ord could find his way to his feet again. Then the other bear-dogs—much modified in the last moments—put their cavernous mouths around various body parts, and waited. And the humans watched Ord, waiting for whatever he said or did next.

The artificial moon filled the sky, and the mountain turned to magma again.

Then came a rumbling thunder, vast and vaguely musical, and Ord smiled as if embarrassed. He hid his genitals with his hands, and quietly, in a near-whisper, told Xo, "You were right. I wasn't strong enough to win."

No one spoke.

"But I am now," he admitted.

The Nuyen's face lost its color, its life. "You can't be. The defense grid is on full alert. Talent requires mass, and nothing has moved into the system since—"

He hesitated, and winced.

Quietly, to himself, he said, "Shit."

Ravleen chewed off her lower lip, then spat it at her captors.

Wide-eyed, Xo gazed up at the sky. "You've always been here," he muttered. "That refugee boy was the last of you, not the first."

Ord nodded, distracted now.

The moon's framework was dissolving, its mysterious guts obeying gravity, pouring out of it like a great, invisible river.

Xo tried to pull his arms free, and the bear-dogs snipped them off at the shoulders and left them flexing and twitching in a neat pile, the hands instinctively clinging to one another.

Then Ord opened a ten-kilometer mouth, finally slaking his fantastic thirst.

8

It was meant to be a weapon, a tool that could destroy talents en masse.

Nothing like it has ever been produced—certainly not in our galaxy—and we should point out, the device was designed and built by every surviving Family, plus civilian agencies. Costs were shared, and responsibilities were shared, and there were inevitable failures in security. Its final assembly took a thousand years in deep interstellar space—a requirement born of microgravity constraints—and our best guess is that the Chamberlain took control of the project then. He gutted our work, then successfully hid his own body parts inside the device. Then he let us make fools of ourselves, delivering him to the unsuspecting Earth . . . with as much pageantry as security allowed . . . each one of us boasting, "This is for you. We have done this wonderful thing for you. . . !"

—a Nuyen memo, confidential

For Xo, there was no compelling sense of failure. No self-pity tugged at him, and in a strange fashion, there wasn't so much as a breath of remorse. The truth was clear-cut: No combination of skill and luck could have beaten the Chamberlain. This situation was born hopeless, and he was blameless. Free of his obligations, Xo could halfway relax. Inside himself, in secret, he nearly smiled. Then he made an effort to adapt to his new circumstances—as a prisoner, as a hostage—watching events but knowing that he had no role but to witness these momentous, inevitable deeds.

With an soft, almost pissy voice, Ord announced, "Now, finally, I'm going to visit my sister."

The words saturated every channel, public and Family, then trailed off into a screaming white hiss that frustrated every other attempt to speak.

The Papago woman said, "Finally! It's about time!"

Ord clothed himself in gray trousers and a bulky gray shirt, but he left his body young and his chin injured by Ravleen, still dripping its illusory blood.

Avram was still holding Xo. He had a relentless grip and a nervous, loud voice. "What do you want from me?" he inquired.

"Stay with Buteo," Ord replied. "While I'm gone, help her hold the Sanchez."

Ravleen was too dangerous to be left with just one of them. Xo would agree, if anyone bothered to ask him.

"What about this one?" Avram asked, giving Xo a hard shake. "What do you want done with him?"

Ord's eyes were distant. Unreadable.

Eventually he said, "The Nuyen will stay with me."

Xo found himself freed, sporting two functioning arms again.

"I want you to watch," Ord promised. "Everything. Then you'll tell your big brothers and sisters that I meant it. I came to talk to Alice. And everything else that's happened was their fault. No one else's."

The last few steps were exactly that. Steps.

The two of them had already passed through plastic rock and collapsing defenses, an army left scattered above them. Temporarily blind; utterly lost. Xo found himself inside an infinite hallway lined with an infinite number of identical doors, armored and mined. It was a powerful escher. He took two steps, then looked over his shoulder. Ord was standing before one door. His face seemed empty, his bare feet frozen to the slick white floor. Reaching for the coded pad, he slowly changed his hand to match the jailer's.

Then, he hesitated.

"Is she there?" Xo asked.

"Yes."

Ord spoke in a whisper, fearful and abrupt.

Xo heard himself ask, "Are you scared?"

"For every imaginable reason," the Chamberlain confessed.

"Don't be," Xo advised. He laughed for a moment, then explained, "Alice has been locked up for so long, and treated so badly by so many people . . . honestly, I doubt if she'll remember much more than her name."

The Chamberlain nodded, then touched the pad, and pushed.

Alice was in the middle of her tiny cell, walking away from them: Step, and step, and then at the tiny white toilet, the smooth turn. For a slip-

pery instant, she seemed oblivious to her guests. Soft blue eyes stared through them, and she took another step, then paused gradually, ignoring her brother but staring hard at the Nuyen.

She was exceptionally pretty. That's what took Xo by surprise.

Ageless and well-rested, Alice looked as clean as her surroundings. She wore a simple prison gown, and her long hair was braided into little red ropes that she had artfully tied together and draped over a half-bare, milky shoulder. She didn't look so lovely on the real-time feeds. The feeds had to be doctored. Xo realized that her jailers wanted audiences to see an unkempt prisoner, suffering and disreputable. They didn't want a simple, contented creature. They certainly didn't want someone who would smile with an easy charm, and bow, saying, "I'm glad to see you, master. As always."

She took Xo's hand, kissing his knuckles one after another.

Xo pulled back, in disgust.

"Alice?" said Ord. "He's not here to torture you."

The beautiful face grinned, turning toward the voice. "Because he's already had his fun with you, by the looks of it."

Ord's face was still oozing, the blood probably mixing with more elusive fluids.

Alice turned back to the Nuyen. "Is he really the Baby? Or has this been one of your little tricks?"

"It's him," Xo maintained.

She preferred doubt.

Ord took her hand, placing it against his face. Fingers vanished into the gore, and Alice flinched, gave a little moan, then flinched again. Then she yanked her hand free and wiped it clean against her gown.

"It is him!" she conceded. Her voice was excited and suspicious, and beneath everything, it was angry. "How terribly lovely! You've taken an incalculable risk, Ord . . . just so you could accomplish . . . what . . . ?"

"I want help." Ord grabbed her by the shoulder, then her forehead. "The Core is obliterated. The rest of the galaxy is in shambles. My intuition—your old intuition—tells me that total war is inevitable. I've tried to defend the Peace. Just as you told me to, I've tried. But I'm alone, Alice. Alone. And things are worse than you could have guessed—"

"Help you?" she interrupted. "Help you how?"

"I'm not sure," Ord confessed. "I've searched every memory you gave me, and something's missing. Something you didn't quite tell me. I think."

Alice laughed lightly. Almost flippantly. She was the Baby now. Her long incarceration had left her stupid and unworldly, and in an unexpected way, blessed with a strange innocence. She seemed at a loss about what to tell her brother, but she tried dredging up answers. Ancient memories began to emerge, but without coordination. There was non-

sense about her childhood and early education, then she rambled on about the Core. How hard she worked with its worlds, making them live. How lovely everything had been in its prime. "So many stars," she sang, "I wish you could have seen it, Ord—!"

"Why me?" he blurted. Plainly angry.

Alice flinched, wounded. "Because you must have fit the duty, I would imagine."

"How can I do this duty?"

A soft, little girl laugh fell into the word, "Think."

Ord looked frustrated, incapable of real thought.

"Think," she repeated. "Why's the galaxy in turmoil? Because people can't find enough homes and peace. But that's the curse of a universe where life is common, like ours. It always becomes crowded. Always."

"Sure," said her brother.

Looking at Xo for a moment, her smile turning poisonous. Then she gradually returned her attentions to Ord, saying, "You need help that I can't give you. But where can you go to find help?"

Silence.

Without warning, she asked, "How did I try to save our little universe?"

Xo answered for Ord, half-shouting, "You built a new one—"

"And it was beautiful! Spectacular and glorious!" She wouldn't look at the Nuyen again. With eyes focused on her brother, she said, "Think," twice. "Think. We had the umbilical pried open long enough for it grow unstable, and that's when the new universe exploded out into our realm—!"

Ord made a low, inarticulate sound.

"What?" Xo muttered. "What is it?"

He shook his head, saying, "That's what happened. One of you . . . someone from the Families . . . crossed over into that new universe. Is that it?"

She didn't answer him directly. But grinning with an incandescent pride, she asked, "Do you know how difficult it's been to keep that delicious secret all to myself?"

Xo shuddered.

Ord touched his chin, then played with the blood between his fingertips. Finally, summoning the courage, he asked, "Who crossed over? What are they doing—?"

With a whisper, Alice said, "Closer."

Her brother obeyed, dipping his head until his ear rested against her pretty mouth. Alice kissed the ear, running her bright pink tongue over the embarrassed lobes, and with an inaudible voice, for a moment or two, she spoke to him.

Then Ord raised up again, his face pale, and simple, and stunned.

He was reacting to what Alice had told him. That was Xo's first guess, and perhaps he was right. Perhaps. But then the prison cell shook and shuddered, and the air grew warmer, and a look of horror came over him. Ord stared at the white ceiling, lifting his arms, screaming, "No!"

And he was gone.

Alice seemed oblivious to any problem. Yet when she looked at Xo, she wore a strange smile. Pulling his head down, she kissed his mouth. She had no odor. No flavor. She was as pure as medical technology could insure, her saliva like water from a mountain brook, her tongue feeling wondrous against his dirty tongue.

"I won't have the pleasure of your company again, I think."

She was speaking to all the Nuyens.

Then, as Ord reached down to reclaim Xo, she said mildly, "Oh, Mr. Nuyen. What do you believe is the best way for someone to have her revenge?"

9

It is best when you can keep yourself innocent, in every eye but your own. Innocent, yet at that same glorious moment, you are hiding in your enemy's shadow, watching him inside his own kitchen, preparing a vat of sweet poisons intended for you . . . and the luscious scent is too much . . . he risks a little taste, then another, and before long, he's consumed every fatal morsel for himself. . . .

—a Nuyen proverb

Ord roared up through the mantle, up into the mansion and the tiny bedroom, then wove a child's body, saying with a smooth urgency, "Keep. Your. Hand. There!"

Avram flinched, but his palm remained flush against the mudstone.

He wore a distant, almost embarrassed expression. In the eyes, he was ashamed. For an instant, Ord could almost believe that his brother had done nothing provocative: He must have wandered into this room out of simple curiosity, and curiosity made him place his hand into the ancient imprint of Alice's hand. This was an accident. An enormous, forgivable miscue. Ord was desperate to say, "You didn't know. This is my fault, not yours . . . !"

But then Avram wrestled up his courage, saying, "Surrender."

The word came out under pressure, wrapped in a white misery. Sliding out after it was the softer, almost mournful:

"Please."

Ord had seen the trigger embedded in that stone, and when it was tripped, Ord had neatly strangled the explosion beneath Alice's cell. But

in the next microseconds, he watched in a wild astonishment as a second trigger emerged. It was a design that he had never anticipated, made of slippery dark matter materials that he still couldn't comprehend. Waiting half-evolved until it felt the pressure and heat of a Chamberlain's hand, it had completed itself in an instant, its complex workings obvious. Blatant. Mirroring the first booby trap, this trigger was linked to globules of molten anti-iron suspended inside magnetic fields. But the waiting bombs didn't come by the handful. Ord began counting them while Alice was whispering into his ear, and he was counting them now, and it seemed as though there was no end to them, tens of millions of them scattered through the Earth's upper mantle, waiting patiently for the chance to be set loose.

Again, with a grim resolve, Avram said, "Surrender."

He didn't offer, "Please," this time.

The booby trap would injure him. Badly, perhaps. But in the milliseconds it would take a detonation signal to cross the world, triggering the weapons in a rippling inferno, most of Ord could retreat to space and its relative safety.

But he wasn't the target, was he?

Avram stared at Ord, his expression changing, an easy disgust making him flinch and shake his head slightly. Then for the final time, he said, "Surrender." And he breathed. Then because he hoped it would help, he smiled, aiming for a hopefulness, asking his little brother, "Really, what choice do you have . . . ?"

The tiny bedroom was suffocating. Even as portions of Ord spun out estimates of how many would die and how much Earth's loss would cost humanity, the rest of him—the center of his soul—felt trapped, helpless and worse than half-dead.

With a quiet, mournful voice, he muttered, "Brother," and began to cry.

A woman's voice asked, "What's happening here?"

Buteo had arrived, Ravleen still wrapped up in her strong arms, still twisting in her grip. Materializing in the hallway, the Papago stared in through the transparent wall, understanding nothing when she added the second question:

"What's wrong with you, Chamberlain?"

Ord explained on a private channel, in an instant.

Buteo's eyes became enormous, and vacant, and she squeezed Ravleen as if trying to crush her.

Ord reached deep and yanked Xo from the jail. Then, ignoring his brother, he directed his rage at the convenient Nuyen. "What were you thinking? The Earth on a precipice . . . just so you could catch me . . . what were you assholes thinking?"

"I don't understand," Xo replied. Then as he saw things for himself,

with his own senses, he began to shake his head numbly and pull at his hair, screaming, "I didn't know! I didn't!"

Avram flexed his right wrist.

Ord reached for him, then hesitated. The trigger was clever in the worst ways, and it was proud of its cleverness. "Touch your brother," it warned, "and I'll detonate. Touch me, and I'll definitely detonate. These are my specifications, and my redundant systems, and every field test result. Look at them. Look at me! You've never seen anything like me, and you can't beat me on your first try."

Ord winced, then looked straight at Avram's eyes.

"You were waiting for me," he remarked. "On the night of your execution . . . you knew that I would come and save you . . ."

The pale hand moved inside the fossil print, just slightly.

Then Avram gave a little nod, saying, "Honestly? I'd given up on you. The Nuyens had come long ago and made their offer. If I got my chance, I was supposed to take it. They didn't explain what this thing was . . . but I could guess. They told me, 'He's not evil, this brother of yours. But he's sadly misguided. And when the circumstance arises, we promise, Ord will make the sane, decent choice.'"

"If I hadn't come for you?" Ord inquired.

"I would have been killed. Of course. If the execution was theater, you wouldn't have trusted me." He sighed, then said, "Honestly, I expected to die. I didn't want *this*. Not to save my life, I didn't. Or even if I was doing some incredible good." He sighed again, then said, "That's why I was scared when I saw you . . . I knew that you'd come to save me at the last possible moment . . . and I was sick of heroics . . ."

Ord closed his corporeal eyes, his fatigue genuine.

When he opened them again, Avram was starting to say, "Surrender," once more.

"I'm doing it," Ord interrupted. "I'm doing it now."

With a graceless crash of systems, he began setting his talents into a deep sleep. By the dozens, by the hundreds. He stripped away his camouflage first, letting the world watch him. Then put his weapons to sleep, and every talent with deadly applications. After thirty seconds of hard work, he had almost dismantled himself. Another few moments would have left him astonishingly ordinary. But then his surviving eyes saw something, and his head turned as Ravleen screamed, "No!"

Too late, Ord understood.

The Sanchez was wrestling with Buteo, distracting her with her strongest limbs, while a weak arm composed of the thinnest materials reached through the wall and across the tiny bedroom. Ravleen ignored Ord; she couldn't have harmed him if she tried. What she grabbed was Avram's sturdy wrist, and with all of the strength in that secret limb, she gave him a hard swift calculated jerk, barely lifting the hand off the cool mudstone.

But it had lifted. Just enough.

With a cool desperation, Avram pressed his palm back against Alice's fossil palm. Even as the world began to tear apart, and as the gods screamed in rage and in grief, he kept his hand exactly where it belonged. And with the ancient mansion evaporating around him, he used his other hands to help in his sacred duty . . . thinking this wasn't what it seemed to be . . . telling himself that he mattered, and he was noble, and he was doing, as always, something good . . .

10

Blame for this horrendous tragedy rests squarely with the Chamberlain . . . and with his violent, immoral allies, including, we fear, a renegade Sanchez . . . !

—a Nuyen announcement

The Families held a private gathering in lieu of their usual public new year celebration.

With their ancient estates obliterated, and the Earth itself a bright white world encased in steam and oceans of irradiated magma, the gathering was held on Mars. It was a sober, prolonged affair. One popular subject was the plan for future estates: The Nuyens had graciously donated one of their intersolar worlds. Over the next few thousand years, the cold body would be eased into the Kuiper belt, then terraformed, and each Family would receive its share of the new land and water.

It was a good, sensible change, many argued. A bittersweet blessing. Having normal citizens living beside the Families was always an unreasonable risk. If Ord had come to their future homeland, not one person would have died. Except the little bastard himself, naturally. Without fragile souls underfoot, the Families could have responded appropriately. And they could have guarded Alice all the better, too.

Had she died with the Earth? Hopefully, was the general verdict.

The Families had saved billions in the first moments after the Chamberlain used that unthinkable weapon. Nuyens had died during the evacuation, all considered heroes today. There were moments when Xo, reflecting on events, wished that his siblings hadn't wasted time rescuing him. But it was a reflexive altruism, and fragile. Besides, if he had died then, he would be some flavor of martyr today—a role that disgusted him for more reasons, and emotions, than he seemed able to count.

An ancient sister approached him during the dour festivities. But she insisted on smiling, almost laughing as she told Xo, "I know you did your best for us. For all of humanity. As far as I'm concerned, you're the first Nuyen who deserves to feel pride."

Because it was expected, he said, "Thank you." More than two hundred billion were dead, and their ancestral homeland was a ravaged wasteland. And he was expected to be polite, accepting this graceless, ridiculous praise.

"I've just heard," the sister continued. "Did you? A dark-matter body matching Ord's configuration raced past one of our Oort stations."

"Which station?"

She told, then added, "It's obvious. Ord's running for the Core now."

"He believes Alice," Xo replied.

The sister watched him, saying nothing in a certain way.

Xo prompted her, asking, "Don't you believe Alice?"

"That someone managed to make their way into this other universe? Perhaps I do, perhaps I don't. Whatever's true, our plans have always left room for that possibility."

"Nuyens are thorough people," said Xo.

She went for the bait, saying, "Absolutely," with a prideful wide smile.

"So what about Ravleen?" He asked it with a careful voice, then added, "That same station might have spotted her, too."

"Perhaps it did," the sister allowed. "Twenty minutes later, perhaps."

Ravleen had escaped in the chaos. She would still be wearing manacles, but not all of them, and given time and ample freedom, they were temporary constraints. And nobody could doubt what the Sanchex wanted.

Xo's doubts lay closer than space. With the help of simple charm, he mentioned to his companion, "Twenty minutes is a long gap. It's a shame, really, that Ravleen couldn't have started her chase sooner."

The sister nodded, smiling in a distracted fashion.

Using his most powerful talents, Xo reached inside her mind, trying to coax out the secrets hiding in its bloody corners.

The smile vanished abruptly, and she set a powerful hand to his shoulder. "What do you think you know, brother?"

"With her talents, it should have taken Ravleen two moments to leave the Earth. Not twenty damned minutes." He didn't care about punishments or sanctions. "But if we disabled her with the implants set in her brain, then captured and interrogated her. . . ."

The woman couldn't imagine that she was anything but in control. She thought it was her own iron will that told her to admit, "It took us fifteen minutes to make our decision. And we haven't regretted it for a greasy moment, brother."

"Who killed the Earth?" he asked.

Calmly, with a dry, simple voice, she told him, "The Chamberlain, of course. And whoever didn't notice Ravleen cutting one of her own hands into two hands, then hiding half of it. For eons, probably. And there were a few other miscalculations, too. But nothing you did, and don't confuse yourself by dwelling on it."

"I won't," Xo lied.

"Good," she replied.

A little while later, using appropriate formality and the stiffest of smiles, Xo left the gathering and his Family, and moments after that, he abandoned Mars, too, using stolen talents to slip out into space, then dipping past the clean white face of the Earth on his way out of the solar system.

It was as beautiful in death as it ever was in life.

He thought.

And the Core was glorious, and hideous, and he steered straight for it while wiping every flavor of tear from every sort of eye. ●



Attention CompuServe customers: have you visited our Forum? GO SPLIT, select "Messages" and then "Browse" down to Section 17, ANALOG & ASIMOV'S MAGS, to see what's coming up in future issues. You can participate in discussions and debates with fellow readers, and even a few of our authors, who make regular appearances; comment on editorial material; participate in contests; and much more. Don't miss it!

NEXT ISSUE

FEBRUARY COVER STORY

Proving once again that when it's Steam-engine Time, somebody invents the steam-engine, our lead story next issue investigates an idea also handled back in the January issue by Geoffrey A. Landis: a scientific expedition that sets out to go where nobody's ever gone before, to someplace, in fact, where it's supposed to be impossible to go and also return: a deliberate plunge into the center of a black hole. This version, though, by hot Australian hard-science writer **Greg Egan**, is a very different take on the idea, as a group of intrepid scientists willing to give up their lives for knowledge if they must, and a determined stowaway who may not quite understand what she is letting herself in for, prepare, amidst an atmosphere of high-stake politics and interstellar intrigue, to plunge to the very bottom of reality itself, by taking "The Planck Dive." Egan's "Cocoon" was one of our most popular stories in 1994, and you won't want to miss this one, to see for yourself why Egan's been called "one of the genre's best ideas men."

BIG-NAME WRITERS

Nebula and World Fantasy Award-winner **Michael Swanwick**, one of our most popular authors, takes us across the solar system to the tortured, molten, ever-changing surface of Io, for a Close Encounter of a suspenseful and surprising kind, one that lets us get to know "The Very Pulse of the Machine"; **Walter Jon Williams**, best-selling author of *Metropolitan* and *City on Fire*, returns with an unusual kind of Hollywood exposé, a wry investigation of the real dangers of being True To Your Art, in "The Picture Business"; the madcap **Eliat Fintushel** triumphantly breaks every literary rule in the book, and does it with his usual flair and elan, as he takes us beyond the boundaries of the story itself to examine the collision between "Izzy and the Hypocrite Lecteur"; multiple Nebula-winner **Esther M. Friesner** offers us a moving and evocative study of a boy lost "In the Realm of Dragons"; Hugo-winner **Janet Kagan** paints a sharp and quirky portrait of "The Stubbornest Broad on Earth"; and multiple-Hugo-winner **David Langford**, making his Asimov's debut, gives us a sly and very funny look at a science fiction magazine that might have been, and offers us a story from that Alternate World SF magazine, as one of the greatest of fictional detectives takes to outer space in order to unravel the mystery of "The Spear of the Sun."

EXCITING FEATURES

Robert Silverberg's "Reflections" column examines an issue in today's headlines, as he ponders the question, "To Clone or Not To Clone"; and **Paul Di Filippo** brings us "On Books"; plus an array of cartoons, poems, letters, and other features.

Look for our February issue on sale on your newsstand on December 16, 1997, or subscribe today and be sure to miss none of the great stuff we have coming up for you this year!

COMING SOON

Powerful new stories by **Mary Rasenblum**, **Michael Swanwick**, **Pat Cadigan**, **Nancy Kress**, **Ian MacDonald**, **L. Timmel Duchamp**, **Gregory Feeley**, **Howard Waldrop**, **Tony Daniel**, and many others.

DESTINY'S ROAD

by Larry Niven

Tor, \$24.95 (hc)

Larry Niven is one of the most inventive writers in SF, not just for ideas and settings, but for memorable characters (human and alien alike) and for plots that keep a reader turning pages. His "Known Space" series is one of the great future histories, and a classic example of free invention within carefully observed boundaries. But even Niven has admitted that the rules he was playing by in Known Space have made it progressively harder to keep coming back and topping himself. Some of the later Known Space books must be all but impenetrable for a reader who doesn't know the earlier books by heart. So it's good news that Niven's latest novel, *Destiny's Road*, is connected only tenuously with his earlier work. It looks as if starting with a clean slate has brought him back to the top of his form.

The new book takes us to the site of the second, so far successful, human expedition to an alien planet, named Destiny by its settlers. (The first, Avalon, figures in *Beowulf's Children* and its sequels—collaborations with Jerry Pournelle and Steve Barnes.) Destiny's indigenous life is based on a slightly different chemistry from Earth's, al-

though not so different as to be poisonous—humans who want to lose weight can eat a diet of Destiny food for a short while. Several local life-forms have been domesticated for human use.

The story begins in Spiral Town, a backwater farming community with few traces of the space-going technology that brought humanity to this world. The major event in Spiral Town is the arrival, twice yearly, of a caravan from distant parts, bringing exotic wares and various necessities not produced locally. Just as we have learned enough about the place to get our bearings, a young man named Jemmy Bloocher kills a man and sets himself, unwittingly, on the trail to altering the fate of his entire world.

The problem is that Jemmy's victim is one of the caravan workers—and, while the homicide seems to be justified, the power of the caravans is absolute in the backwater region around Spiral Town. (As we eventually learn, the source of their power is "speckles"—a nutrient without which humans gradually lose mental acuity. Deprived of it long enough, they will die. And there is no source other than the caravans.) So Jemmy's only choices are to face punishment from the caravans—likely to be a death sen-

tence—or to flee, trying to find someplace to hide from them. Jemmy decides on the latter—and so we embark on a picaresque tour of Jemmy's world.

Jemmy (who undergoes several name changes in the course of his exodus) is curious about exactly the kinds of things a reader might be interested in: notably, the spaceships that brought humans to the world, and the world's aboriginal inhabitants, a water-dwelling race known as Otterfolk. He is even more curious to visit Camelot—a larger island to which Jemmy's homeland ("Crab Island") is connected by a causeway that none of the Crab Islanders are allowed to cross, on penalty of death. His curiosity leads him to join a caravan as a "labor yutz"—a native worker—(despite the danger of being recognized as a murderer), and inevitably to find a way to reach Camelot.

There he finds the more advanced culture that sends the caravans, and learns the origin of speckles. And he eventually makes himself a reasonably comfortable life, blending into the culture and evading detection by anyone who might recognize him as a "Crab shy," let alone a wanted man. But just as the reader has been lulled into thinking that Jemmy has settled down for good, Niven pulls a surprise out of his hat—one that changes the entire future of Jemmy's world. Niven plays fair: while an astute reader can look back and see all the ingredients of the surprise being laid out on the table,

when the author finally springs it, it works.

All of Niven's characteristic strengths are here, including his ability to create convincing alien worlds and the people that inhabit them. The landscape of Destiny is full of interesting life-forms, from the quasi-crustacean chugs used as draft animals by the caravans to the fool cages, plants that trap unwary small animals—not to mention the enigmatic Otterfolk. Likewise, Niven has always been a virtuoso inventor of entertaining linguistic coinages ("speckles," "yutz," "Crab shy"), verbal tags and running gags ("It's the law!"), and evocative names for places and people—and he's as good as ever here.

But it is the narrative drive of this novel that is the strongest sign that Niven is back at top form. Jemmy's fugitive status is never entirely out of the reader's mind. The various incidents along the way to the conclusion—as when he finds that he has walked into a maximum security prison—build effectively on his sense of guilt. It leads him to take on and reject a series of interim identities, to find a way to live unnoticed in Camelot, and ultimately to his final discovery of a way to break the iron grip of the caravans upon Crab Island.

Best of all, this new world gives the author plenty of room for fresh invention. It's not clear whether there will be sequels, although it certainly looks as if there can be if Niven feels so inclined. More importantly, *Destiny's Road* finds

Niven returning to the form of his best early work, and that's excellent news indeed.

Billions and Billions: Thoughts on Life and Death at the Brink of the Millennium
by Carl Sagan

Random House, \$24.00 (hc)

In this posthumous discussion of the place of science in the modern world, Carl Sagan shows himself to have been perhaps the finest popular exponent of the scientific outlook since Isaac Asimov himself.

This loosely organized volume is divided into three large sections, focusing on quantification, conservation, and the mutual interdependence of the whole human race. Connecting everyday experience with the fundamental principles of the universe, these examinations of the history and theory of science work quite effectively as stand-alone essays. Several of them were evidently published as such, although there is no clear indication in the book of their previous history of publication. (That omission can hardly be laid to Sagan's account, in any case.)

In the first essay, Sagan points out that the book's title, a phrase indelibly associated with him in the popular mind, is a parody invented by Johnny Carson—then launches into a discussion of large numbers and scientific notation. In similar fashion, other essays extrapolate from TV sports to an examination of our race's hunter-gatherer origins, and from the

fragile ecology of a small aquarium to that of our entire planet. Three chapters discuss the Antarctic ozone hole, its causes and possible cures; another uses the myths of Croesus and Cassandra to examine the range of response to scientific "prophecy."

One of Sagan's major appeals was his ability to look beyond whatever scientific principle he began with to the broader human consequences of the ideas he wrote about. Thus, a discussion of how exponential series increase evolves into examinations of population growth and the spread of the AIDS epidemic. Likewise, Sagan spends some time attempting to reconcile the missions of science and religion. The discourse focuses on problems that affect us all: the degradation of the environment, the polarization caused by such deep moral issues as abortion. Chapters on the meaning of Gettysburg and on the accomplishments of the twentieth century (prolonging human life; creating the capacity to wipe it out entirely; and unprecedented insights into the nature of the universe) attempt to capture an even longer perspective.

The concluding chapter, written after Sagan's discovery of the cancer that killed him, looks death in the face, and declares his willingness to fight it. A poignant afterword by his wife, Ann Druyan, ends the book without undercutting the author's final note of optimism. While Sagan's unflagging confidence in reason and his sci-

tific boosterism made him an easy target for parodists and anti-science crusaders, their choice of him as a target was implicit recognition of his broad appeal. Reading this book reminds us how eloquent a spokesman he could be, and how hard it will be to fill his shoes.

All-American Alien Boy

by Allen Steele

Old Earth Books, \$15.00 (tp)

Steele's second short-story collection from this small-press publisher covers a span from 1993 to '96. The majority of the stories are set in a very near future, often distinguishable from our present by a single alteration. And the voices talking to us—often first-person—speak in the American vernacular, the voices of people we can recognize as our contemporaries, perhaps even our next-door neighbors.

As frequently as anyone currently writing SF, Steele meets the requirement once enunciated by John W. Campbell, that a science fiction story ought to read like a story from an ordinary magazine, aimed at a general readership, of the future society it presents. Part of his ability to write so convincingly may be his background as a newspaperman. He frequently presents his stories in pseudo-journalistic guise: "Mudzilla's Last Stand" is a series of interviews, and "2437 UFOs over New Hampshire" reads like a magazine article.

This technique is especially appropriate in the two alternate history stories here. "Riders in the Sky" (from *Alternate Outlaws*) por-

trays the James-Younger gang inventing a new form of robbery after the introduction of dirigibles into the Old West. And in "A Letter From St. Louis," from *War of the Worlds: Global Dispatches*, a young newspaper reporter files an eyewitness account of H.G. Wells's Martians taking apart the Midwest. Both stories make their fantastic material seem real by focusing on the subject rather than the presentation. Not that Steele invariably limits himself to a plain prose style. He simply decides what the right tool is for a given job, and uses it, as any good craftsman does.

Steele also projects a strong sense of place; most of these stories are set in regions that Steele himself has lived in—New Hampshire, Missouri, or the South. Another important ingredient of his writing is an ear for how real people talk; evidently, setting his stories in places where he understands the local dialect gives him the sense of reality that he needs. In "See Rock City" the voice is pure country; in "Whinin' Boy Blues," it's moved into town; and in "2437 UFOs" it's a mix of exurbanite and New England.

While he has never seemed interested in far futures and alien planets (Mars is about as far away as I can remember him setting a story), Steele does the day after tomorrow about as well as anybody in the business. "Lost in the Shopping Mall" takes a subject—virtual reality—that's been done so many times it's all but played out and

finds a new human dimension to it. Likewise, "Hunting Wabbit" begins with the oh-so-trendy theme of a doomsday asteroid and takes it in an emotional direction I don't recall seeing in quite this form—and with a good deal of wit, in the process.

The introductions to the individual stories are generally businesslike, telling the circumstances of the story's writing and adding a little bit of personal reflection. We get a good feeling for the author's enthusiasms and for the sheer fun he obviously has writing these stories. A lot of that fun comes across to the reader—exactly as it should.

A Geography of Unknown Lands

by Michael Swanwick

Tiger Eyes Press

\$25.00 (hc); \$12.00 (tp)

Swanwick's short stories, like many of his novels, take extraordinary situations—people living on a planet-sized grasshopper, a picnic near the edge of the world, a young boy who goes off with the elves—then ratchet the strangeness up still another notch. And yet, the people are usually quite ordinary, while the surface of the prose is often quite placid, presenting preposterous things as unexceptional.

The first piece in the book, "The Wireless Folly," is an entertaining short allegory of the history of science fiction in terms of the history of a huge Victorian building taken over and remodeled by successive generations of an amateur radio club. The piece has the obvious drawback that a reader who doesn't

recognize what Swanwick is talking about may wonder what the point is. But while the allegory is certainly amusing, the impact of the piece does not depend on it. Everyone not tipped off in advance begins the story not knowing that the huge mansion is going to signify anything in particular—so that Swanwick's prose has to draw the readers in and keep them turning pages, and that it does.

In "Mother Grasshopper," most readers are likely to have figured out who the narrator is well before the last line of the story makes it explicit. Swanwick is not especially interested in setting up plot puzzles for the reader to solve; here, as in many of his novels, the progression of the story is not so much a conventional SF plot as an orderly series of experiences for the reader to observe and ponder.

"South of Diddy-Wah-Diddy" is probably my favorite story in this collection (although with so much variety, that's a hard call to make). Here the protagonist is the snack bar attendant on a Hell-bound train, a southern Black who was sent to Hell after he was caught in a homosexual act with a white man, and lynched. (The angels were sympathetic, but the rules are the rules.) Swanwick combines the microcosmic world of a train crew with glimpses of the damned souls having one last blowout before the tortures begin, for a remarkable tour-de-force. Everything in the story rings true, from the dialect to the details of railroading life. The story also has the

strongest plot, in the conventional sense, which may be why I like it best.

But as already noted, Swanwick can keep the reader focused even when he abandons plot for other kinds of story structure. In "The Changeling," he sets up plot expectations and then deliberately abandons them, as the narrator's memory fails or skips ahead—and yet the detail and the color makes the story unforgettable. "Radio Waves" sets two disembodied souls—living an afterlife as electromagnetic ghosts—running along the wires of Swanwick's own Philadelphia neighborhood, chased by a sort of electronic monster. Escaping the beast is in many ways pointless, since they are already dead. Rather, their goal is to come to an understanding of their past before they dissipate into the heat-death of the universe as cosmic background radiation.

As good as his novels are, in many ways, Swanwick is at his best in these short pieces. Reading several of them in a row is a wonderful reminder of what an unclassifiable original he is, one of the most distinctive voices in our field.

The Tough Guide to Fantasyland

by Diana Wynne Jones

Vista, £4.99 (no US edition)

This book—which has made the Hugo ballot in the Non-fiction category—is available from many dealers who import British books. It may be the funniest and most devastatingly accurate guide to genre fantasy ever written. A suffi-

ciently cynical writer could use it as a template for a series. But be warned—you may find more than one of your favorite fantasy authors dissected and skewered here.

Represented as a tourist's guide, the book offers an encyclopedic alphabetical list of people, places, and other things one might encounter on a tour of Fantasyland. The subjects range from the prosaic (donkeys, common cold—both rare) to the esoteric (unicorns, dragons—also rare) to the pragmatic (cloaks, swords, and magic—all but unavoidable). The treatment is for the most part deadpan, based on the premise that the reader has bought the book with the intention of taking a tour run by the Management, by whom all things were ordained and whose ways are inscrutable in the extreme.

But any reader at all aware of the clichés of fantasy will quickly catch on to Jones's game. From the obscure and irrelevant utterances (usually ascribed to Ka'a Orto'o) that serve as epigraphs to each letter of the alphabet to the near-Random use of Capital Letters, Jones unerringly spots all the pretensions of pseudo-archaic fantasy, and deflates them one by one. One running joke is "Official Management Term" (marked with the symbol "OMT" in a small oval), used to characterize such stale descriptions as "carved from the living rock" (a tunnel) or "songs of aching beauty" (elvish music).

But there are plenty of other treats here, from the silly place-

names on the map (an obligatory feature of Fantasyland tours) to the whimsical ornamental capital letters at the head of each chapter. The occasional illustrations, drawn from many sources, cover a range from literal-minded (Horses) to apparently pointless (Colour Coding, reproduced in black & white) to bizarre (Blacksmiths). And her hints on what the tourist might expect are scathing observations of exactly how the typical fantasy falls short of life.

The articles on Domestic Animals, Ecology, and Economy blow the lid off 90+ percent of the fantasy novels ever written—there is no way a society built on these premises could exist for even a year. Likewise, the articles on Confrontations, Incidents, or any of the various weapons or magical artifacts common to fantasy, expose the paucity of imagination of most of the popular writers in the genre. Sure, it's unfair. So was Mark Twain's essay on "Fenimore Cooper's Literary Offenses," one of the most devastating critical barrages ever unleashed. Don't worry—you'll still be able to read your favorite fantasy writer after reading

the *Tough Guide*—and the best fantasy will still be as enjoyable as ever—but you'll have a permanent inoculation against the absurdities.

While she's at it, Jones also cuts the legs from under another genre: the traveler's guide. Almost every page has its share of self-referential cross-references ("Porridge. See PAN-CELTIC TOURS") and banal (or impenetrable) marginal symbols (a crossed knife-and-fork next to the casual mention of food in the "Dungeons" article). The tone of the advice doled out to the prospective tourist strikes exactly the right balance between worldly-wise and cheery: "Puddings are unknown, except occasionally in the Courts of KINGS. Tourists who suffer from diabetes should be quite safe."

With no plot to summarize, this book really has to be seen to be appreciated. It deserves a US edition—although regular con-goers, or readers who live in a town with a bookstore that can get imports, shouldn't have much trouble finding it. (I picked mine up—signed by the author—for \$11.00 at Boskone.) It's the best £4.99 you'll ever spend. ●

ARE YOU MOVING ?

If you want your subscription to ASIMOV'S to keep up with you, send both your old address and your new one (and the zip codes for both, please!) to our subscription department:



ASIMOV'S SCIENCE FICTION
P.O. Box 54625, Boulder, CO 80322-4625

Index

This index covers Volume 21 of *Asimov's Science Fiction* magazine, January 1997 through December 1997. Entries are arranged alphabetically by author. When there is more than one entry for an author, listings are arranged chronologically in order of appearance in the magazine. All entries are followed by a parenthetical note: (a) article; (c) cartoon; (ed) editorial; (ge) guest editorial; (na) novella; (nt) novelette; (p) poem; (r) review; and (ss) short story. Collaborations are listed under all authors and are cross-referenced. When a title, a parenthetical note, or an author's name is omitted, it is the same as that of the previous entry.

—“Eleventh Annual Readers’ Award Results” (a)	Sep	10	Chase, Robert R. “The Figure of Drosselmeyer” (ss)	Jan	72
—“1996 Nebula Award Results” ..	Aug	7			
—“1997 Isaac Asimov Award” (a) ..	Jul	10	Chilson, Rob “Do We Dare Disturb the Universe?” (ss)	Dec	46
Abraham, Greg “Front Man” (nt)	Jun	60			
“Poyekhali” (nt)	Sep	82	Daniel, Tony “Black Canoes” (ss)	Jul	74
Addison, Linda D. “Why the Dinosaurs Died” (p) ..	May	66	Davidson, Avram “Vergil and the Dukos: Hic Inclusus Vitam Perdit, or, <i>The Imitations of the King</i> ” (ss)	Sep	102
Aldiss, Brian W. “The Enigma of the Three Moons” (ss)	May	80	Dedman, Stephen “Tour de Force” (ss)	Mar	74
Baker, Kage “Noble Mold” (nt)	Mar	28	Devenport, Emily “The Long Ride” (nt)	Aug	30
“Facts Relating to the Arrest of Dr. Kalugin” (nt)	Oct/Nov	60	Di Filippo, Paul On Books (r)	Jan	142
Baxter, Stephen “Zemilya” (ss)	Jan	58	—— (r)	Apr	146
“Soliton Star” (ss)	May	68	—— (r)	Sep	145
Berman, Judith “Lord Stink” (nt)	Aug	78	—— (r)	Dec	146
Boston, Bruce “Curse of the Bandersnatch’s Wife” (p)	Mar	45	Duchamp, L. Timmel “Quinn’s Deal” (na)	Apr	108
“Curse of Medusa’s Husband” (p)	Jun	35	“The Apprenticeship of Isabella de Pietro Cavazzi” (nt)	Sep	12
Bova, Ben (& Rick Wilber) “The Babe, the Iron Horse, and Mr. McGillicuddy” (nt)	Mar	54	Duncan, Andy “Beluthahatchie” (ss)	Mar	110
Brunner, John “Blood and Judgment” (nt)	Apr	74	Dyer, S.N. “The Nostalgonauts” (ss)	Mar	46
			Feeley, Gregory “On the Ice Islands” (nt)	Oct/Nov	124

Felice, Jenna A.			Kress, Nancy		
"Love Bite" (p)	Feb	15	"Always True to Thee, in My Fashion" (ss)	Jan	16
Fintushel, Eliot			Landis, Geoffrey A.		
"Izzy and the Father of Terror" (na)	Jul	104	"Ouroboros" (ss)	Jan	86
Rynn, Michael F.			"Winter Fire" (ss)	Aug	10
"House of Dreams" (nt)	Oct/Nov	154	Lee, Tanith		
Fowler, Karen Joy			"Alter I Killed Her" (ss)	Jul	90
"Standing Room Only" (ss)	Aug	68	Lindow, Sandra		
Frazier, Robert			"Unnurturing Nature: The B.F. Skinner Blues" (p)	Jan	57
"A Reflection on the Apollo Moon Missions" (p)	Sep	81	"On Distance" (p)	Jun	93
Friesner, Esther M.			Lunde, David		
"Prey" (ss)	May	52	"In Which Gravity is a Function of the Fall" (p)	Jan	85
Gardner, James Alan			Lyris, Sonia Orin		
"Three Hearings on the Existence of Snakes in the Human Bloodstream" (nt)	Feb	76	"Payback" (ss)	Jun	94
Goldstein, Lisa			MacLeod, Ian R.		
"Fortune and Misfortune" (ss) ..	May	106	"The Roads" (ss)	Apr	102
Goulart, Ron			"The Golden Keeper" (na)	Oct/Nov	14
"Downsized" (ss)	Apr	42	Marcus, Daniel		
Harness, Charles L.			"Killed in the Ratings" (ss)	Jan	48
"The Flag on Gorbachev Crater" (nt)	Jun	110	Mayhew, Joe		
Healy, Peg			"Shakespeare on Deneb II" (c) ..	Aug	157
"System Crash" (p)	Feb	37	McAuley, Paul J.		
Heck, Peter			"Second Skin" (nt)	Apr	10
On Books (r)	Feb	152	McAuley, Paul J. (& Kim Newman)		
——— (r)	Mar	150	"Residuals" (nt)	Jun	10
——— (r)	Jul	151	McDevitt, Jack		
Jennings, Phillip C.			"Never Despair" (ss)	Apr	33
"The Runaways" (nt)	Feb	124	McDonald, Ian		
Johnson, Bill			"After Kerry" (nt)	Mar	124
"We Will Drink a Fish Together . . ." (nt)	May	10	Mintz, Catherine		
Jones, Gwyneth			"Witchcraft" (p)	Dec	77
"Balinese Dancer" (nt)	Sep	54	Neube, R.		
Kagan, Janet			"The Holy Stomper Vs. the Alien Barrel of Death" (ss)	Jul	18
"Standing In the Spirit" (nt)	Dec	26	Newman, Kim (& Paul J. McAuley)		
Kelly, James Patrick			"Residuals" (nt)	Jun	10
"Itsy Bitsy Spider" (ss)	Jun	48	Nordley, G. David		
Kratts, Aimee			"Messengers of Chaos" (na) ...	Jan	90
"Call Me Sue" (ss)	Sep	42	Ore, Rebecca		
			"Scarey Rose in Deep History" (ss)	Jun	78

"Collected Ogoense" (nt)	Oct/Nov	202	Reflections: "Tarzan at the Earth's Core" (ed)	Aug	4
Payne, Michael H.			"Death Do Us Part" (nt)	Aug	50
"The Language of Ghosts" (ss) .	Aug	106	Reflections: "Ships That Sail to Mars (Part One)" (ed)	Sep	4
Purdom, Tom			Reflections: "Ships That Sail to Mars (Part Two)" (ed)	Oct/Nov	4
"Canary Land" (nt)	Jan	28	Reflections: "The Case of the Radioactive Goat Cheese" (ed) .	Dec	4
Rathbone, Wendy			Spinrad, Norman		
"Bad Dreams" (p)	Dec	25	"Mars" (r)	Jun	144
Reed, Robert			"Ethnicity" (r)	Aug	143
"Mind's Eye" (nt)	Oct/Nov	86	"Postmodern Fantasy" (r)	Oct/Nov	272
Resnick, Mike			Stableford, Brian		
"The 43 Antarean Dynasties" (ss)	Dec	8	"Inside Out" (nt)	Mar	10
River, Uncle			Steele, Allen		
"Passing the Torch" (nt)	Feb	96	".... Where Angels Fear to Tread" (na)	Oct/Nov	220
Robertson, R. Garcia y			Stewart, W. Gregory		
"Fair Verona" (nt)	Oct/Nov	176	"angel fishing" (p)	May	79
Rosenblum, Mary (& James Sarafin)			"yuppie (pre)meditations. with a bullet." (p)	Jul	89
"One Good Juror" (nt)	Feb	38	Strauss, Erwin S.		
Rosenblum, Mary			The SF Conventional Calendar ..	Jan	160
"The Botanist" (nt)	Aug	122	——	Feb	160
Sanders, William			——	Mar	160
"The Undiscovered" (nt)	Mar	86	——	Apr	160
"Words and Music" (nt)	Jul	34	——	May	160
Sarafin, James (& Mary Rosenblum)			——	Jun	160
"One Good Juror" (nt)	Feb	38	——	Jul	160
Sarafin, James			——	Aug	160
"In the Furnace of the Night" (na) .	May	118	——	Sep	160
"Shadows on the Mountain" (nt)	Oct/Nov	104	——	Oct/Nov	288
Schimel, Lawrence			——	Dec	160
"Many Moons Ago" (p)	Apr	73	Swanson, Michael		
Silverberg, Robert			"The Wisdom of Old Earth" (ss)	Dec	102
Reflections: "Six Trillion Miles High" (ed)	Jan	4	Thrower, B.J.		
Reflections: "Memories of a Curious Childhood" (ed)	Feb	4	"Noodle You, Noodle Me" (nt) ..	Dec	54
"Call Me Titan" (nt)	Feb	16	Tiedemann, Mark W.		
Reflections: "Glimpses of the Future" (ed)	Mar	4	"Rust Castles" (ss)	Apr	56
Reflections: "Coming Attractions" (ed)	Apr	4	Utley, Steven		
Reflections: "The Handprints on the Wall" (ed)	May	4	"This Impatient Ape" (p)	Apr	32
Reflections: "The Sense of an Ending" (ed)	Jun	4	"Our Brave Terranaut" (p)	Apr	101
Reflections: "My New Software" (ed)	Jul	4	"Report to Moctezuma" (p) ..	Jun	47
			"To a Scorpion" (p)	Jul	33
			"Two Fish" (p)	Aug	29

"Rex and Regina" (p)	Sep	75	"Mother Africa" (ss)	Jun	36
Waldrop, Howard "El Castillo de la Perseverancia" (nt)	Dec	78	Wilber, Rick (& Ben Bova) "The Babe, the Iron Horse, and Mr. McGillicuddy" (nt)	Mar	54
Ward, Cynthia "On the Last Day of School" (ss) .	May	96	"Homer" (p)	Aug	104
Watkins, William John "17 Questions the Judges at Nuremberg Forgot to Ask" (p) ...	Feb	122	Williams, Walter Jon "Lethe" (nt)	Sep	114
"In the Star's Mouth" (p)	Oct/Nov	103	Willis, Connie "Newsletter" (nt)	Dec	112
"Why the Mummy Kills" (p)	Oct/Nov	175	Winter, Laurel "How to Make Love to a Shark" (p)	Aug	49
What, Leslie "Smelling of Earth, Dreaming of Sky" (ss)	Sep	76	"why goldfish shouldn't use power tools" (p)	Dec	44
Wheeler, Deborah			Wright, John C. "Guest Law" (nt)	Jul	56

Learn about sex from a chum?

After we fight our way
upstream through chemical
poison, over dam spillways,
past vicious bears and
commercial fish traps, we
dump our eggs and die.



TWELFTH ANNUAL READERS' AWARD

Well, it's the January issue again, the start of another new year, and as our long-time readers know, that means that once again it's time for our Readers' Award poll. **Please Vote. Your ballot will be automatically entered in our drawing for a free one-year subscription.**

We consider this to be our yearly chance to hear from you, the readers of the magazine. That's the whole point behind this particular award. What were your favorite stories from Asimov's *Science Fiction* last year? This is your chance to let us know what novella, novelette, short story, poem, cover artist, and interior artist you liked best in 1997. Just take a moment to look over the Index of the stories published in last year's issues of Asimov's (pp. 153-156) to refresh your memory, and then list below, in the order of your preference, your three favorites in each category. (In the case of the two art awards, please list the artists themselves in order of preference, rather than the individual covers or interior illustrations—with the poetry award, however, please remember that you are voting for an individual poem, rather than for the collective work of a particular poet that may have appeared in the magazine throughout the year.)

Some further cautions: Only material from 1997-dated issues of Asimov's is eligible (no other years, no other magazines, even our sister magazine *Analog*). **Each reader gets one vote, and only one vote.** If you use a photocopy of the ballot, please be sure to include your name and address; your ballot won't be counted otherwise.

Works must also be categorized on the ballot as they appear in the Index. No matter what category you think a particular story ought to appear in, we consider the Index to be the ultimate authority in this regard, so be sure to check your ballots against the Index if there is any question about which category is the appropriate one for any particular story. In the past, voters have been careless about this, and have listed stories under the wrong categories, and, as a result, ended up wasting their votes. All ballots must be postmarked no later than **February 2, 1998**, and should be addressed to: **Readers' Award, Asimov's Science Fiction, Dell Magazines, 1270 Avenue of the Americas, New York, NY, 10020.** You can also vote via the Internet at **71154.662@compuserve.com**.

Remember, you—the readers—will be the only judges for this award. No juries, no panels of experts. You are in charge here, and what you say goes. In the past, some categories have been hotly contested, with victory or defeat riding on only one or two votes, so every vote counts. Don't let it be your vote for your favorite stories that goes uncounted! Don't put it off—vote today!

The winners will be announced in an upcoming issue.

BEST NOVELLA:

1. _____
2. _____
3. _____

BEST NOVELETTE:

1. _____
2. _____
3. _____

BEST SHORT STORY:

1. _____
2. _____
3. _____

BEST POEM:

1. _____
2. _____
3. _____

BEST COVER ARTIST:

1. _____
2. _____
3. _____

BEST INTERIOR ARTIST:

1. _____
2. _____
3. _____

SIGNATURE: _____

ADDRESS: _____

CLASSIFIED MARKETPLACE

AS January '98

ASIMOV'S/ANALOG combination CLASSIFIED AD rate is \$4.80 per word—payable in advance (\$72.00 minimum). Capitalized words 60¢ per word additional. To be included in the next issue, please send order and remittance to Dell Magazines, 1270 Avenue of the Americas, New York, New York 10020, Attn: Carole Dixon

ASTROLOGY

WITCHCRAFT! Harness its power! Free Protective Pentacle. Write: School, PO Box 297AN, Hinton, WV 25951.

BOOKS & PERIODICALS

FREE LISTS Quality used paperbacks: SF, mysteries, gothics, westerns. (Please specify) Steve Lewis, 62 Chestnut, Newington, CT 06111.

INTERNET guides for readers, Mystery, SF, romance, genealogy! Enhance your reading. Free catalog: 703-569-7990.

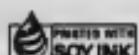
GREAT LIES EXPOSED
"Man is just a stimulus-response animal."
GET THE TRUTH. \$6.99 paperback. Call toll free
"Scientology: A New Slant on Life"
by L. Ron Hubbard
© 1997 DCO. All rights reserved

\$6.99 paperback. Call toll free
(888) 514-TRUTH
Church of Scientology Celebrity Centre Int.
3830 Franklin Ave., LA, CA 90018

PATENTING

FREE Intervention Kit: Patent and Market your new product idea! Call Concept Network 1-800-846-8368.

American Heart Association
Fighting Heart Disease and Stroke



PUBLISHING

NEW AUTHORS

PUBLISH YOUR WORK

ALL SUBJECTS CONSIDERED

Fiction, Biography, Religious, Poetry, Children's

AUTHORS WORLDWIDE INVITED.

WRITE OR SEND YOUR MANUSCRIPT TO

MINERVA PRESS

2 OLD BROMPTON ROAD, LONDON SW7 3DO, ENGLAND

your
classified/
display ad
can be placed

HERE

for details—
CAROLE DIXON
DELL MAGAZINES
1270 AVENUE OF THE
AMERICAS
NEW YORK, NEW YORK
10020
(212) 698-1313
Fax: (212) 698-1198

SF CONVENTIONAL CALENDAR

Here are the WorldCons for the rest of the millennium. Plan now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For an explanation of cons, a sample of SF folksongs, and info on fanzines and clubs, and how to get a later, longer list of cons, send me an SASE (self-addressed, stamped #10 [business] envelope) at 13107B Autumn Wood Way, Fairfax VA 22033. The hot line is (703) 449-1276. If a machine answers (with a list of the week's cons) leave a message and I'll call back on my nickel. When writing cons, send an SASE. For free listings, tell me of your con 6 months out. Look for me at cons as Filthy Pierre, with a musical keyboard.—Erwin S. Strauss

NOVEMBER 1997

28-30—**LosCon.** For info, write: 11513 Burbank Blvd., N. Hollywood CA 91601. Or phone: (818) 760-9234 (10 AM to 10 PM, not collect). Con will be held in: Burbank CA (if city omitted, same as in address) at the Airport Hilton. Guests will include: S.M. Stirling, J. Michael Straczynski, M.D. Bentley, Geni Sullivan.

28-30—**ConCat.** (423) 523-6986. Radisson, Knoxville TN. Barbara Hambly, George Alec Effinger, the Dietricks.

28-30—**SiliCon.** (408) 541-0358. Hilton, Sunnyvale CA. Huff, Bruton, Kerns, Christian, Csemica, Ray F. Nelson.

28-30—**Darkover Council.** (202) 726-4396. Holiday Inn, Timonium (Baltimore) MD. For Marion Z. Bradley fans.

28-30—**Visions.** (847) 882-8575. Hyatt, Rosemont (Chicago) IL. J. Doyle, B. Blessed, P. Davison, P. Tallman.

28-30—**Trek Celebration.** (913) 894-8735. Marriott, Indianapolis IN. Sirtis, Takei. Commercial Star Trek event.

29-30—**Creation.** (818) 409-0960. New York NY. Creations are commercial media/comics-oriented events.

29-30—**Creation.** (818) 409-0960. Pasadena (CA) Center. Boxleitner, Doyle, Furlan, de Lancia, Phillips, Visitor.

DECEMBER 1997

5-7—**SMOFCOn.** (617) 625-2311. (E-mail) info@mcfi.org. Doubletree, Boston MA. Convention organizers talk shop.

5-7—**DraCon.** (05) 538-249. (E-mail) zrustek@fi.muni.cz. Santon Hotel, Brno Dam, Czech Republic. At a resort.

13—**Babylon 5 Conference,** U. Coll. of York & Riper, St. John, Lord Mayor's Walk, York YO3 7EX, UK. Academic.

JANUARY 1998

2-4—**EveCon,** 1607 Thomas Rd., Friendly MD 20744. (301) 292-5231. Holidome, Frederick MD. Relax-a-con.

2-5—**Shinnekai,** Box 3038, Wokingham Berks. RG40 3JT, UK. Radisson Heathrow, London. For anime fans.

10-11—**Trek Celebration,** 13109 W. 88 St. Ct. #62, Lenexa KS 66215. (913) 894-8735. Indianapolis IN. Sirtis, Dom.

16-18—**Arisia,** 1 Kendall Square #322, Cambridge MA 02138. Westin, Waltham MA. J.P. Hogan, Courtney Skinner.

AUGUST 1998

5-9—**BuccoNeer,** Box 314, Annapolis Junction MD 20701. Inner Harbor, Baltimore MD. WorldCon. About \$125.

SEPTEMBER 1999

2-6—**AussieCon 3,** Box 266, Prospect Heights IL 60070. Melbourne Australia. G. Turner, Benford. The WorldCon.

AUGUST 2000

31-Sep. 4—**ChiCon 2000** Box 642057, Chicago IL 60664. (CompuServe) Chi 2000. Unopposed WorldCon bid. \$125.

Get Twice the Science Fiction Entertainment!



Subscribe to *both Asimov's Science Fiction* and *Analog Science Fiction and Fact* and *save more than 25%* off the regular price!

You'll get a total of 24 issues (12 issues of each) for only \$49.97. You save \$18.00!

Each issue of **Asimov's Science Fiction** blends scientific realism with fantasy. Each spellbinding issue of **Analog Science Fiction and Fact** will take you on a journey into intergalactic adventures. Both magazines feature some of the most creative Science Fiction writers of our time.

Call today to begin your subscriptions to Asimov's and Analog at this special low rate.

Mail to:

ASIMOV'S & ANALOG
P.O. Box 54625
Boulder, CO 80322-4625



To charge your order by phone call, toll-free

1-800-333-4108

Outside the USA: 303-678-0439

If you already subscribe, you can still take advantage of this special low price. Be sure to mention you're currently a subscriber when you order.

Please allow 6 to 8 weeks for delivery of the first issue. We publish a double issue of each magazine, which counts as two issues toward your subscription. Outside USA: Add \$16 per year for shipping and handling (U.S. funds only, payable with order).

HF975

You can buy a Rolex®...but for \$99 you can get a clock that's even more precise!

New Zeit Clock by Arcron uses radio signals from the U.S. Atomic Clock in Colorado to display the precise time, within a billionth of a second.

 These days, timing is everything. Between meetings and appointments, deadlines and conference calls, my schedule requires that I know the time down to the minute. If I'm late, I'm sunk. Now there's no need to worry, because the Atomic Clock by Arcron gets the time directly from the U.S. Atomic Clock in Fort Collins, Colorado, the standard for time-keeping the world over.

The most accurate clock on Earth. Every morning at 1:00 a.m., this "smart" clock tunes in to the radio time signal emitted by the U.S. Atomic Clock in Colorado and automatically resets itself to the exact hour, minute and second. The U.S. Atomic Clock is accurate to ten billionths of a second per day. The Atomic Clock even adjusts automatically for daylight savings time, so you don't have to remember to "spring forward" or "fall back". The desktop model is the only clock that will not lose time with low power or when you change its batteries.

An easy time. The most accurate clock in the world is of no use if it is difficult to operate. The Arcron Atomic Clock comes in two styles, the wall clock and the executive desktop model. Both are designed to be functional and easy to use.

The desk clock's display features the exact time (in hours, minutes and seconds), month and date, or you can choose to display any two U.S. or world time zones. It also has dual alarms, perfect for



Desktop Alarm Clock

couples, and one-touch illumination for nighttime viewing. The handsome wall clock comes with temperature and humidity gauges. After you install the batteries, watch the hands spin at 20 times their normal rate, until the clock has adjusted to the precise time. Both the executive desktop and the wall model have an internal antenna for superior reception sensitivity, without unattractive wires.

The time to buy is now! Act now and you can own the world's most precise timepiece. Both the executive desktop and the wall model come with a one-year manufacturer's limited warranty and Comtrad's risk-free home trial. If you are not completely satisfied, return your purchase within 90 days for a full "No Questions Asked" refund.

*Rolex® is a registered trademark of Rolex of Geneva Corporation.

Atomic Wall Clock \$99 \$8 S&H

Atomic Desktop Alarm Clock \$99 \$8 S&H

Please mention promotional code 2762-11890.

For fastest service, call toll-free 24 hours a day

800-992-2966



**comtrad
industries**

2820 Waterford Lake Dr., Suite 102
Midlothian, Virginia 23113

15th ANNIVERSARY ISSUE

APRIL 1996

Asimov's SCIENCE FICTION

War at the End of Time!

Human History

by Lucius
Shepard

Connie Willis

Isaac Asimov

Ian Watson



Ponder The Future of the
Universe While You
Save Over 16% Today!

YES!

Send me ASIMOV'S SCIENCE
FICTION.

8 issues for only \$20.97

NAME

ADDRESS

CITY

STATE

ZIP

Payment enclosed. Bill me later. (U.S. only)

We publish a double issue in October/November. This issue counts as two issues towards your subscription. Canadian and Foreign orders 8 issues for \$24.97 (U.S. funds). Includes GST. Please allow 6-8 weeks for delivery of your first issue. Foreign orders must be pre-paid.



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 1344 BOULDER CO

POSTAGE WILL BE PAID BY ADDRESSEE

Asimov's
SCIENCE FICTION

**PO BOX 54625
BOULDER CO 80323-4625**

